



312066 0271 5924 4





Digitized by the Internet Archive  
in 2012 with funding from  
Boston Library Consortium Member Libraries

<http://archive.org/details/informationtechn51999mass>





# INFORMATION TECHNOLOGY

GOVERNMENT DOCUMENTS  
COLLECTION

APR 19 1999

University of Massachusetts

Depository Copy

## BULLETIN

Vol. 5 No. 1

Winter 1999

Executive Office For Administration & Finance  
Information Technology Division



## Year 2000: Beyond The Hype

### In This Issue...

Comptroller Opens Books .....	2
Personal Profile: Patricia Wada Directs HR/CMS Effort .....	3
IT Bond II Update: DOR Robotics .....	4
Managing IT Bond Spending & The Capital Cap .....	5
Who's Doing What Regarding The Year 2000 .....	6
Online Government	
Project Spotlight: Multi-State EMail Pilot .....	8
Online Government Program Announces Website .....	9
Y2K Legal Issues .....	10
Massachusetts Community Network .....	11
Message From The CIO .....	12

On December 14, 1998, Governor Argeo Paul Cellucci issued Executive Order 408 on Meeting the Year 2000 Challenge. This Executive Order calls for all state agency heads to be responsible for Year 2000 compliance in their agencies and, where Y2K compliance is not possible, to be responsible for contingency plans to ensure uninterrupted service delivery. Executive Order 408 also requires that each executive secretary and department director appoint a senior official to oversee the organization's Year 2000 compliance. The Executive Order further summons all executive agencies, especially the Fiscal Affairs Division (FAD) and the Information Technology Division (ITD), to assist the Secretary of Administration and Finance in ensuring Year 2000 readiness. The Secretary of Administration and Finance will constitute a Year 2000 Coordinating Committee from the designated senior officials overseeing their agencies' Year 2000 compliance and/

or uninterrupted service delivery. The goal set by the Executive Order is to ensure that state government business transactions in 2000 are as effective as those transacted in 1999. The Governor and the House and Senate Science and Technology Committees have declared Year 2000 readiness as the highest priority in state government.

The Fiscal Affairs Division and the Information Technology Division are working together to request another supplemental budget allocation for Year 2000 efforts that have been unable to find other funding. The focus during fiscal 1999 will be on those agencies that are still in the process of Y2K remediation, and on those agencies conducting

Independent Verification and Validation (IV&V) efforts on their remediated systems. Later in calendar 1999, the focus will shift to ensuring that contingency plans exist for mission critical systems.

Stories about Y2K are now common in the mainstream media, and many are oriented to

*Massachusetts  
government has  
assumed the  
responsibility of  
assuring its citizens  
that the century change  
is not a catastrophe  
about to happen.*

doomsday scenarios. If the public is not sick of hearing about Y2K yet, it will be before reaching the Year 2000. There are stories about people who are planning to set out on boats or to

hide in bunkers in late 1999, with their own electricity generators and huge stockpiles of food, supplies, and money — only to rejoin the rest of the world if and when it is functioning again. Yet Massachusetts state

Continued on page 10



## Comptroller's Office Opens Up the Books Electronically

Are you a vendor that would like to quickly review your payment history or check on upcoming payments from the Commonwealth? Perhaps you are a citizen who would like to find out how much a senior state official was paid last year or what company made the most money from the Commonwealth. These questions and many more can now be answered through the Office of the State Comptroller's (OSC) innovative new MassFinance website.

"Many people talk about opening the books to state government," said outgoing Comptroller William Kilmartin. "If one truly believes the books should be open, then in the 1990s that means the information should be on the Internet." Turning that belief into reality, OSC's MassFinance web site provides links to two new applications, CommonCents and VendorWeb, that were launched at the end of 1998.



CommonCents provides answers to frequently asked financial questions, including where the Commonwealth spends its money. Diane Ledwell, Director of Technical Services for OSC said the office frequently gets calls for various financial information and CommonCents was developed to make finding the information easier. OSC reviewed all of the requests and put the fifteen most frequently asked questions on CommonCents, with more planned for the future.

Project Director Peter Shoemaker said that, not surprisingly, the most popular topic currently is Commonwealth department head salaries. Other areas of inquiry on CommonCents provide a vast array of financial information from categories such as education, public safety, health and human services, transportation, statewide information and employees. For example, users can find out:

- How much did the Commonwealth spend on higher education?
- How much did the Commonwealth spend on public safety?
- What is the total amount of revenue received by the Commonwealth?
- What did the Commonwealth spend in the legislative branch?

The site, which Comptroller Kilmartin believes is one of the first of its kind in the nation, is updated on a daily basis.



VendorWeb is a secure site that allows Commonwealth vendors to look up financial information related to their company on the web. Through the Internet, vendors can look up payments that are scheduled to be made to them by the Commonwealth and they can review their payment history from the Commonwealth. Security is maintained by requiring users to enter their vendor code to gain access to VendorWeb. Once they are in, "What used to take a week to find can now be done in a matter of minutes," said Ms. Ledwell. "The site allows people to easily access the information they need without worrying about the tools behind the application."

While VendorWeb is now an informational site (read only access), it may eventually allow transactions between vendors and the Commonwealth. For instance, Comptroller Kilmartin said vendors may someday be able to log on, view their information and request a transaction such as rescheduling a payment in exchange for a discounted amount.

On a more technical note, the MassFinance applications operate on servers managed by OSC

*Continued on page 11*



# PERSONAL PROFILE

## *Patricia Wada Directs HR/CMS Effort*



Since 1984 when Patricia Wada joined state service, she has taken on a series of increasingly responsible positions which have allowed her to help shape information technology at the Commonwealth. As director of Strategic Planning she brought coordinated information and assistance to

departments as they approached – sometimes with gusto and sometimes with trepidation – what was then “the new technology.” Largely as a result of her guidance, tact, and energy the Governor’s Advisory Council for Information Technology (GACIT) promulgated standards to assure that the state’s IT structure would not be fragmented but would grow in a coordinated, compatible manner. In the early 1990s, when the Commonwealth acknowledged the need for large-scale, comprehensive automation, she played a pivotal role in convincing the Legislature to fund the effort through technology bonds. More recently, her focus has been new systems, first at the Department of Social Services, where she headed up the automated child welfare information system, FamilyNet.

Today, Wada is Project Director of the new Human Resources and Compensation Management System (HR/CMS), which will replace CAPS and PMIS early in the year 2000. The project is one of the largest and most ambitious since the implementation of the state’s financial system, MMARS back

in 1986. HR/CMS reaches across all branches of government and brings client/server computing to the desktops of human resources and payroll personnel.

### *What is the problem HR/CMS solves?*

HR/CMS is an enterprise-wide application – a huge project, one the Commonwealth would not have taken on, according to Wada, if our legacy payroll systems were not very close to collapse. Though the project provides a much-improved internal management capability, which will result in better government, its primary function – an *extremely* important one – is to assure that state employees are paid quickly and efficiently for the work they do. Tinkering the various separate payroll systems to keep them operating is no longer an option.

### *HR/CMS is a client/ server application that will take advantage of thin client technology*

Providing a new, statewide system calls for a new technology solution. “This project is one of the first of its size to use thin client technology,” comments Wada. “Without thin client, we would potentially have stopped the project.” Standard client/server technology would have required the Commonwealth to install bigger servers and enhance the network with high-speed lines to departments. In addition, software would have to be

distributed periodically to all HR/CMS user PCs – all very difficult and expensive. By contrast, the thin client technology, which the state is adopting with HR/CMS, keeps the high-powered computing at the data center. The HR/CMS software – in essence, the panels on which work is done – is sent over the network to department PCs.

### *A different mind-set*

Wada explains that this project requires that Senior Executives from all Departments, not just the Information Technology Division, participate in both the important policy decisions and – at least to some extent – the day to day tasks involving testing and implementation. “It is a project that demands cooperation and participation on a larger scale than is usual here in the Commonwealth. But the Executive Committee has determined that the rewards are worth the effort. Employees too, will benefit from a system that allows them to take advantage of new forms of electronic banking.”

### *Department participation*

In the next few months department involvement with the project will increase. Department demonstrations of HR/CMS are underway, and HR/CMS liaisons are prepared to help coordinate the work of IT managers as they test department connections in late March and early April. “Much of the project’s work to date has been behind the scenes. As spring approaches we will begin to see concrete evidence at the department of all this effort.”

---

*Much of the project’s  
work to date has been  
behind the scenes.  
As spring approaches  
we will begin to see  
concrete evidence at  
the department of all  
this effort.*

---



# IT BOND II UPDATE

## *Robotics System Increases Efficiency and Reduces Costs*

The Massachusetts Department of Revenue's (DOR) Informational Services Organization had a problem. The organization is responsible for the data storage needs of 68 different state systems and millions of records in a 7 day a week, 24 hour per day operation. Last year their duties were expanded to include records from the state's child support system, increasing the organization's workload by almost forty percent.

"We could not make the days any longer so we had to look for technology to help us get the job done," said Deputy Commissioner Vincent Piccinni. DOR found its answer in Robotics Tape Storage Technology. Each day, the Informational Services Organization backs up data on hundreds of tape cartridges that must be moved off-site. This is a time consuming process that is also prone to operator error.

In a typical operation, magnetic media is physically gathered from an on-site library, usually from a list generated by a tape management system. The media is then transported to a data center to await console messages before mounting or dismounting cartridges on transports. An operator will see a tape mount request message on his or her console and then mount a specific tape cartridge on a specific tape drive to read a mount request message. Finding the right cartridge, the operator goes to the correct drive, mounts the cartridge and returns to the console. Depending on the environment, it is possible for the operator to complete one task per minute or 48 per hour, assuming 80 percent efficiency. The new system can complete the mount tasks in a matter of seconds.

Under the newly installed StorageTek Automated Cartridge System (ACS), the entire process has been automated through the use of robotics. The tasks of selecting a tape cartridge in response to a tape mount request from the host system, moving the cartridge to a tape drive and returning it to its home storage cell are executed by a high speed robotic mechanism under software control. Basically, the ACS uses robotic arms for all of the mounting and dismounting of the cartridges, eliminating human intervention from the process. The system may also have the ability in the future to eliminate the manual process of moving the cartridges off-site through the use of fiber optic extenders.

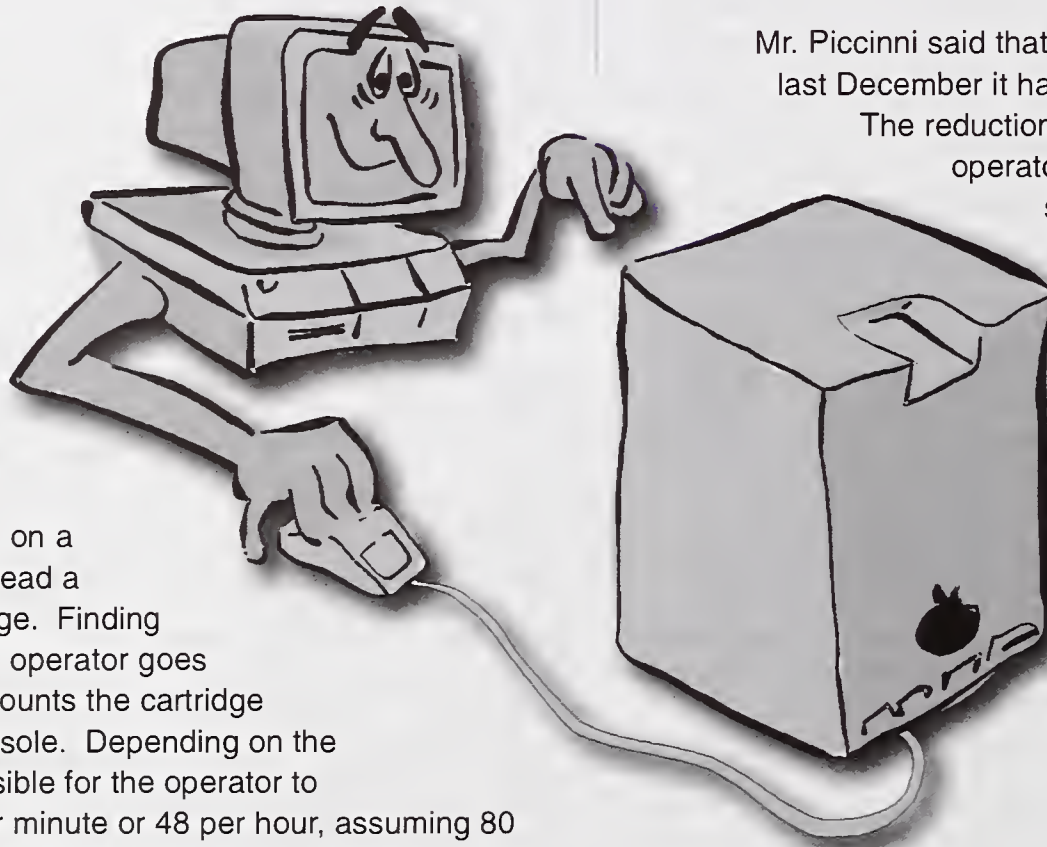
Automating the system has reduced the processing time and virtually eliminated operator error. In addition, the system now utilizes 36 track cartridges which hold four times more data than the previous 18 track cartridges. With the Unisys ACS in place, DOR is also looking at the possibility of archiving imaged tax returns. Last year alone, the Department processed three million tax returns that consisted of six double-sided pages each.

Mr. Piccinni said that since the ACS began operating last December it has been an unqualified success.

The reductions in errors, processing and operator time, as well as the increased storage capacity of the new

cartridges has resulted in significant cost savings. While the new system has not added more hours to the day, it has allowed DOR to perform many more tasks in the same amount of time. In a sense, it has added more time to DOR's day by allowing them to complete more work in the same amount of time.

"The system has definitely given us some breathing room," concluded Mr. Piccinni.





# Managing IT Bond Spending and the Capital Cap

*With more realistic estimates, a larger number of projects can be accommodated.*

In order to control the Commonwealth's debt service obligations, the total amount of bond-funded capital spending which is allowed statewide in any fiscal year is limited by

statute to an amount which is far lower than the total of all existing capital appropriations. Each year the Secretary of Administration and Finance determines an overall capital spending "cap"

which complies with the statutory limit, and apportions the cap to the various capital spending

agencies. A&F gives ITD the portion of the cap which is intended to accommodate all information technology capital spending, and ITD in turn is responsible for apportioning this across various IT projects each year.

Prioritizing among all of the competing projects is a

difficult, and unpopular, task. However, the task is made somewhat easier, and the results much better, to the extent that ITD has realistic agency project plans and spending projections. Although almost everyone would like the IT capital cap to be larger than it is, the ironic fact is that most years the cap actually is under-spent because many approved projects experience delays or other factors that cause them to spend less than originally projected. There is an understandable tendency for agencies to provide overly ambitious plans and overestimates of spending. The unfortunate result is that ITD must either discount these estimates, which it often is not in the best position to do, or ITD must accept the overestimates for some projects, and therefore deny funding to other projects. With more realistic estimates, a larger number of projects can be accommodated.

At this point in FY1999, all agencies with approved IT capital projects need to re-evaluate the status of

these projects against their original milestones and spending projections, and provide ITD with updated plans. One expected result is that this will free up some of the FY1999 capital cap, and permit authorizing additional projects during the remainder of this year. Another result is that ongoing projects with revised plans which now more accurately show some activity and spending shifting from FY1999 into FY2000 will be at the top of the priority list for FY2000.

As it moves forward into FY2000 — while not wishing to be punitive — ITD will be influenced in its judgments regarding agencies' project proposals and spending plans by experience of how well those agencies managed the planning task and how candidly they communicated in FY1999. ITD urges all currently funded IT Bond project managers to undertake a serious re-evaluation of their projects, and update ITD with any changes that will affect FY99 expenditures.





# Who's Doing What Regarding:

## Y2K Program Update

### How much is left to do?

If you're involved in a Year 2000 project, you may already know how many different aspects of technology are affected. If you're not, here's a list of the types of items which the project team needs to check and possibly repair, *apart from the applications themselves*:

- |   |   |   |
|---|---|---|
| <ul style="list-style-type: none"><li>• All application interfaces, including those to other applications within the agency, interagency interfaces, and those connecting the agency with external trading partners and clients.</li><li>• All mainframe and mid-range computing platforms (firmware, operating systems, layered product software such as utilities, resource management software, and third party application software).</li><li>• Desktop and laptop PC's (hardware, BIOS, operating system, application software, and user files such as databases and spreadsheets).</li><li>• LAN's and WAN's, including servers, network operating systems, messaging systems (for Email and calendaring), network management software,</li></ul> | <ul style="list-style-type: none"><li>hubs, routers, bridges and other network devices. You might be surprised to know that <i>fifteen</i> agencies operate their own private WAN's, serving other agencies and external clients; ITD operates two over MAGNet: the TCP/IP Routed Network and the SNA legacy network.</li><li>• Facilities (at <i>all</i> agency locations) systems which have embedded chips (e.g., hardware, software and firmware used in security systems, climate control, elevators, lighting, etc.).</li><li>• Telephone systems, including private call switches, voicemail systems, voice landline circuits, cellular services, radio, and related telecommunications devices and management software.</li></ul> | <ul style="list-style-type: none"><li>• Future Date Testing of systems using a test environment to simulate operation during the next century, and running transactions with future dates.</li><li>• Documentation (and in some cases, monitoring or even audit) of compliance status of all major vendors, suppliers and service providers.</li><li>• Independent Verification and Validation (IV&amp;V) to ensure the project has addressed Year 2000 concerns adequately.</li><li>• Business continuity and contingency plans for possible Year 2000 failure scenarios; items will be overlooked, and additional errors will inevitably be introduced during remediation (on average, about half of all maintenance changes introduce another defect).</li></ul> |
|---|---|---|



# THE YEAR 2000

## *What is Independent Verification and Validation (IV&V)?*

Independent Verification and Validation (IV&V) is the process of confirming the successful remediation of large systems. IV&V of mission critical systems is required for all Commonwealth-critical agencies. IV&V work should only be assigned to an independent entity, i.e., one that has not been involved in any level of remediation of the specific system undergoing IV&V.

IV&V can be used to minimize the risk that a systematic flaw in the work performed, or the way it was performed, has left (or introduced) Year 2000 problems in the technology asset. Given the stakes associated with some potential systems failures, employing IV&V is also considered prudent management practice, and part of the due diligence which agencies must be able to demonstrate they have performed.

Typical elements of IV&V include the assessment of the process of remediation and its thoroughness in addressing Year 2000 coding or application issues, as well as a testing segment where a sample of the system is scanned for problematic date references which were not remediated. The results of the sampling test can be used to determine if IV&V needs to be pursued further.

OSD has negotiated and established an approved list of IV&V suppliers, which is posted on the OSD website. IV&V is also discussed in further detail in the second edition of *Meeting The Challenge* – section 3..5. – see the Y2K PMO Web site at <http://www.state.ma.us/y2k/index.htm> for a copy of the document.

## *Contingency Planning and Business Continuity*

At the December Users Group meeting, the PMO rolled out its templates for Contingency Planning and Business Continuity Planning. These templates are designed to guide an agency through the process of preparing for a system or service failure, should their remediation work not identify or address all Year 2000 problems in a system, or should an external service fail. If you are asked to participate in one of these efforts, it's an opportunity to contribute to the success of the agency in a creative (and highly valuable) way, so the PMO encourages you to participate as actively as possible. The templates are available on the PMO web site.

## *Meeting the Challenge, Edition 3*

Over the past two months, the PMO has drafted the third and final edition of its resource guide to Year 2000 practices and solutions, "Meeting the Challenge". Topics in Edition 3 build on previous editions, which continue to be a valuable reference. New topics include Embedded Systems, Telecommunications, and Risk Management. Updates to useful web sites, vendor and contract information, and agency contacts also appear. Copies were distributed at the February 9th User Group meeting and are available online at the PMO web site.

## *Year 2000 Quarterly Report on PMO Interview Results*

The last quarterly report of 1998 was presented to the Legislature's Joint Committee on Science and Technology on February 3, 1999. The report, which is posted on the Y2K website, summarizes the status of the Commonwealth of Massachusetts, and lists each agency's status, as well as that of each of the 511 Mission Critical and Essential systems currently being tracked by the PMO. As the millennium approaches, the PMO will be switching to a monthly reporting cycle; the change was described at the February 9th Users Group Meeting, and will be covered in the next ITD Bulletin (June 1999).

---

*...IV&V is also considered prudent management practice, and part of the due diligence which agencies must be able to demonstrate they have performed.*

---





# Online Government

## *Project Spotlight: The Multi-State EMall Pilot*

The multi-state EMall is one of the most innovative and ground breaking government-to-business electronic commerce projects in the nation. This pilot project, sponsored by the Commonwealth, is a multi-state, Extranet-based cooperative purchasing system. The Operational Services Division (OSD), the Office of the State Comptroller (OSC) and the Information Technology Division (ITD) are joint sponsors of the project.

The EMall is a web-based application that can be accessed by authorized users using their desktop computers to purchase maintenance, repair and operations (MRO) items and services from existing contracts. The web site provides a common point of access for participating states to "shop" from pre-qualified vendors who maintain "storefronts", essentially contract-specific catalogs, on the Internet.

Users of the EMall are distinguished by state and are allowed to place orders with suppliers under contract with that state or with suppliers covered by cooperative purchasing agreements with other EMall states. Security and authentication are provided by digital certificates, and user IDs with passwords, that allow for access control and authorization levels.

A set of Operating Rules was developed to establish the business and legal environment necessary to conduct binding transactions within this new electronic commerce community. The guidelines specify scope; authentication (including the certificate policy); roles, functions and authorizations of participating parties; technical requirements; and duties and obligations of the parties.

Science Applications International Corporation (SAIC) is working together with Intelisys Electronic Commerce, LLC as the contracted solution providers. The project is using Intelisys' IEC Enterprise, an electronic commerce application that supports the Open Buying on the Internet (OBI) standard. Motorola is providing digital certificates for use during the pilot.

Participating states include Idaho, Massachusetts, New York, Texas and Utah. Several other states are following

the project as observers. Each state is expected to bring at least one supplier partner to the project. In Massachusetts, the following agencies are participants in the pilot: the Central Business Office (administers purchasing for 14 A&F departments including OSD and ITD), the Department of Mental Health, the Department of Transitional Assistance, the Massachusetts Commission for the Blind, the Office of the State Comptroller, and the University of Massachusetts Medical Center. Participating Massachusetts suppliers include VWR Scientific, CompuCom, Home Depot/Maintenance Warehouse, ASAP Software, and Fisher Scientific.

The first order transaction on the EMall was conducted on October 15, 1998. The project team is currently working on refining the application and bringing on more users and suppliers. The goal is to generate enough transactions to provide the data necessary to evaluate the project in the Spring. The evaluation will test the following nine hypotheses:

1. Does the EMall reduce administrative costs?
2. Will aggregate volume lower unit cost?
3. Are suppliers motivated to participate?
4. Is OBI a good model for buyers and sellers?
5. Can EMall support buyer procurement workflows?
6. Can EMall support legacy accounting applications?
7. Is the technology available off-the-shelf mature enough for OBI?
8. Is the technology for security adequate?
9. Is the business/legal model for EMall adequate?

The results of the evaluation, together with the overall pilot experience, will help chart the course for the EMall beyond the pilot period which ends on June 30, 1999.

For more information on the EMall project, visit its web site at <http://emall.isa.us/>.





# Online Government

## *Online Government Program Announces Website*

Please visit the new Online Government in Massachusetts web site on a regular basis.

This site serves as a source of news, information, guidance and reference on topics related to Online Government. Strategic

Directions documents will be published on this site. There is also a link available only to state staff to access Discussion Drafts for review and comment. Notifications will be sent out via e-mail when new drafts are posted to this site.



The Web site can be accessed through ITD's Internet site at <http://www.magnet.state.ma.us/itd> and selecting the link for "Online Government in Massachusetts." It can also be accessed from ITD's Intranet site at <http://www.itd.state.ma.us/> and clicking on Online Government in Massachusetts under "Our Projects". Any comments and suggestions are appreciated. Also, please feel free to forward any items or links of interest to recommend for publication on the site.

## *Legal Issues and the Year 2000*

On December 14<sup>th</sup> and 16<sup>th</sup>, Chris Supple, General Counsel of the Executive Office for Administration and Finance, and Ray Campbell, General Counsel of the Information Technology Division, hosted Year 2000 awareness sessions for almost 100 lawyers from around state government. These sessions were designed to accomplish several objectives:

- To provide agency counsel with an explanation of the Y2K problem and the possible consequences for state agencies;
- To foster a greater appreciation of the numerous, complex legal issues raised by the Y2K problem; and
- To establish a forum for state lawyers to ask questions and receive advice from their peers on Y2K legal issues.

Because this first round of meetings was so well received, A&F and ITD intend to sponsor additional sessions on Y2K legal matters. The next meeting is tentatively scheduled for March. Additional information regarding this meeting will be sent directly to the people that signed in at one of the first two sessions and also to all agencies' general counsels.

In addition, ITD is currently preparing a Request for Responses to establish a blanket contract for Y2K legal services, so that agencies will have easy access to the expertise of local law firms if they so choose.

For more information regarding the Y2K Legal Group, please contact Ray Campbell at <ray.campbell@state.ma.us>.

---

*Continued from page 1*

agencies are not only working to assure that state government business is ready for the Year 2000, but also dealing with the Commonwealth's cities and towns, major industries, and small businesses. Massachusetts government has assumed the responsibility of assuring its citizens that the century change is not a catastrophe about to happen.

Yes, there will be problems, but not at the scale predicted. The fact that January 1, 2000 falls on a Saturday, provides a weekend to ensure that systems are operational on Monday January 3, 2000. "Twenty-four by seven" operations will require different contingency plans from "normal business hours" operations – but in either case,

contingency plans will exist so that business can be conducted even where systems fail. ITD's Year 2000 Program Management Office (PMO) has been ensuring the progression of state agencies from Y2K awareness, through assessment and remediation, to contingency planning. The PMO has also spearheaded the Y2K outreach efforts to the municipalities, industries and businesses.

So, be prepared! Be prepared at state government agencies to expect questions from both the Executive and Legislative Branches about Year 2000 readiness. And be prepared to be tired of all the hype and predictions of doom in the media.

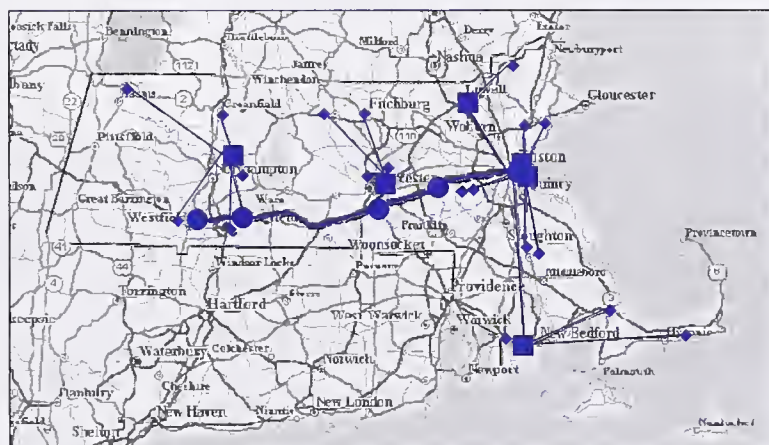


# PROJECT PROFILE

## Massachusetts Community Network

One of the items contained in the "capital supplemental" bill signed by Governor Cellucci last summer (Chapter 289 of the Acts of 1998) was a \$5 million appropriation for the Massachusetts Community Network (MCN). The goal of the MCN project is to create a statewide network providing inexpensive, high-bandwidth data services for K-12 schools and municipal offices. MCN is a collaborative effort involving the Information Technology Division, the Department of Education, the Massachusetts Corporation for Educational Telecommunications, and the University of Massachusetts. In addition to these primary sponsors, several other state agencies are also involved, including the Massachusetts National Guard and the Board of Library Commissioners.

As these organizations have explored the benefits of creating a statewide network, it has become clear that MCN will be able to achieve significant savings over current market prices. The main reason for this is that MCN would act as an enormous purchasing cooperative. The number of potential "customer" sites around the state is approximately 3,000. Rather than having these sites purchase Internet access alone or in small groups, aggregating this demand for network services will allow MCN to obtain significant volume discounts. A second major cost saving is achieved by using the University of Massachusetts' MITI (Massachusetts Information Turnpike Initiative) fiber backbone to bridge the eastern and western regions of the state, thereby avoiding any "Inter LATA" charges. Finally, with so many users on a single network, it will be possible to



Massachusetts Information Turnpike

offer central network services, such as Internet access, directory services, and server hosting, much more economically than could be done on a smaller scale.

At this time the MCN steering committee is busy meeting with consultants and various telecommunications vendors to evaluate various technical and business issues. There is also a bill before the Legislature to provide an additional \$10 million in funding for the MCN project.

*Continued from page 2*

with content refreshed (and assured daily) from the Commonwealth Information Warehouse (CIW) which is fed from the legacy accounting application, MMARS. Access from a user desktop computer and standard web browser, is routed through the Commonwealth's Intranet for its governmental users and through the firewall – managed by the Information Technology Division – for its Internet users. The technical architecture, for both hardware and software, is intended to support and allow additional releases for the CommonCents and VendorWeb applications, and potentially a third application – at this stage being referred to as ManagerMMARS. Consistent with the Commonwealth's strategy for on-line government and electronic

commerce, continuous growth and sophistication to MassFinance is intended.

Both sites began functioning in December, with a public roll-out in early February. Even without any advanced publicity, Mr. Shoemaker said the sites were averaging almost 500 hits per week – an indication that they should be very popular with the public and vendor community. Additional communications about the applications will next be launched with an informational campaign.

Both sites can be accessed at <http://massfinance.state.ma.us> or through links to other web homepages.

## INFORMATION TECHNOLOGY DIVISION

One Ashburton Place, Room 801  
Boston, MA 02108

The Information Technology Bulletin is a quarterly newsletter of ITD's Strategic Planning Group. One of the SPG's tasks is to act as a clearinghouse for IT information. This publication furthers that goal. Please send correspondence to Managing Editor, Elaine Socha, the Information Technology Bulletin, Room 801, One Ashburton Place, Boston, MA 02108

Voice: (617) 973-0865  
FAX: (617) 727-3766  
Email: Elaine.Socha@state.ma.us

This publication is also available on the web at  
<http://www.magnet.state.ma.us/itd/bulletin/>

Next Publication: Spring 1999

LEONARD ADAMS  
UMASS - W.E.B. DUBOIS LIBRARY  
GOVERNMENT DOCUMENTS  
AMHERST MA 01003

Presorted  
First Class  
U.S. Postage Paid  
Permit No. 2226  
Warcester, MA



Printed on Recycled Paper

### *A Message From The CIO*

Time flies! It is hard to believe that I have been Acting CIO for three months. Hardly a week goes by when ITD does not get an inquiry from the press concerning Y2K. And these inquiries are not looking for good news: they want to know where the problems are, what are the likely areas of failure, should people be concerned about this and such failing, and so forth. This has sensitized me to the need to keep in mind that part of the remediation process is ensuring the public that service provided on January 1, 2000 will be the same as the service provided on December 31, 1999. And if there are problems, we will be prepared to handle them. This is a tall order, but one that highlights the basic business we are in: we either provide or we regulate the infrastructure that the public depends upon. And it is incumbent on us to insure — and to assure everyone — that Massachusetts state government services will not be interrupted.

I encourage you to look (if you haven't already) at the first two new strategic directions at ITD's new Online Government web site (available from the Internet at <http://www.magnet.state.ma.us/itd/>, selecting the link for Online Government in Massachusetts; and from ITD's Intranet site at <http://www.itd.state.ma.us/> in "Our Projects" under Online Government in Massachusetts). This site is new and I invite your feedback. We are also in the process of a procurement for dial/VPN services, this procurement will not only result in several new offerings, but will also form the basis for better service and new rules regarding dial services for networks connected to MAGNet.

1999 promises to be a busy year, so keep your eye on the calendar!

David Lewis



# INFORMATION TECHNOLOGY

GOVERNMENT DOCUMENTS  
COLLECTION

AUG 20 1999

University of Massachusetts

Depository Copy

B U L L E T I N

Vol. 5 No. 2

Executive Office For Administration & Finance  
Information Technology Division

Spring 1999

## Secretary Natsios Advocates Use Of IT In Management And Communication



Andrew S. Natsios rejoined Massachusetts state government in March as Secretary for Administration and Finance. Secretary Natsios served as a State Representative from Holliston from 1975 to 1987, and for the past 10 years has worked in national organizations concerned with international

development, foreign disaster relief, and humanitarian assistance.

In 1989, Secretary Natsios was tapped by President George Bush as Director of Foreign Disaster Assistance in the US Agency for International Development, and later was named Assistant Administrator for the Bureau of Food and Humanitarian Assistance. Following his service in the Bush Administration, he spent five years as Vice President of World Vision, a Seattle-based nonprofit organization that provides economic development and disaster assistance to burgeoning countries across the globe. For the past year, Secretary Natsios was a Jennings Randolph Senior Fellow at the United States Institute for Peace, where he researched and wrote a book on the North Korean famine.

Secretary Natsios is a strong advocate of management information systems, especially as tools for senior managers to procure information unavailable by traditional methods. He believes in utilizing data to better understand the behavior of an

organization, rather than operating on assumptions. "Management information allows us to know rather than to theorize: to track over time the effectiveness of change — or its ineffectiveness or even how it would damage the organization," he said.

Secretary Natsios believes that ongoing communication is essential to maintaining leadership and focus in an organization. "Effective communication requires reiteration and email is a great tool for this." He cautions that email requires careful use because interpersonal relationships can be damaged or compromised through ineffective use. "Email is good for transferring neutral information, but using it to debate provocative issues risks misunderstanding and conflict. This usage extends the debate instead of resolving it," he said. He also believes that face-to-face communication is still the most effective method of communication. Secretary Natsios said, "The further away you get from direct interpersonal contact, the higher the risk of miscommunication."

As a prolific author of books and periodical articles, Secretary Natsios finds that technology improves not only the speed of writing, but also its quality. This enables him to increase the volume of his writing — which he muses can be good or bad depending on the reader's viewpoint.

When Secretary Natsios left state government in 1987, capital funding of information technology projects had not yet been initiated. As a fiscal conservative, Secretary Natsios is troubled about the amount of authorized debt in Massachusetts and grateful for the Cellucci Administration's

adherence to the capital cap that keeps some of the authorized bonds from being issued. For tools like desktop computers with a brief productive life, he thinks the conservative principle behind capital funding is compromised because the bonds outlive the PCs — unlike bond-funded roads or buildings, which are still in use 30 years after construction.

Although the ability to analyze data is greatly improved by information technology, Secretary Natsios does not think that IT alone can make state government run more efficiently. He believes that the legislature, the executive office and other government entities must set aside personal or political differences for the sake of good public administration. When he left Massachusetts in 1987, he was discouraged with the apparent inability of state government to innovate and improve management. While running large organizations in the private sector, he developed a better sense of why organizations run well — or don't run well — and was able to import some effective management principles. On his return to Massachusetts state government, Secretary Natsios finds enormous managerial improvements that he attributes to the leadership of the Weld and Cellucci administrations, and to Charles D. Baker's role as the former Secretary of A&F. "The quality of managers, especially at the middle levels has improved greatly," said Secretary Natsios. He is now more enthusiastic about the self-renewing approach in the American system of government. "Returning to Massachusetts puts things into perspective."

### In This Issue...

New Emissions Testing .....	2
CHSB Executive Director Focuses The Delivery Of Public Safety Information ....	3
IT Bond II Update: Web Based System at DYS .....	4
Moss Finance Project Wins Award .....	4
College Compuses Upgrade Networking Infrastructure .....	5
Who's Doing What Regarding The Year 2000 .....	6
Online Government: On The Notional Agenda .....	8
ITD Resources .....	9
More IT Bond II Updates: PoyInfo .....	10
Innote Management .....	11
Message From The CIO .....	12



# New Emissions Testing Program Will Mean Cleaner Air

*This is the first in a series of articles about the Commonwealth's new emissions testing and vehicle safety inspection program. This article will provide a general overview of the project and future editions of the ITD Bulletin will examine the technology involved and the progress of the implementation.*



Every summer, Massachusetts air exceeds federal health standards for ozone. During the summer months, the impact of ozone is similar to a mild to severe sunburn on the lungs, directly impacting the health of one in eight Commonwealth residents. Scientific studies show that cars, trucks and buses contribute more than 40% of the pollution that causes the state's ozone problem. A disproportionately large part of the vehicle emissions that create the ozone problem came from a small number of vehicles with malfunctioning emission controls.

The Commonwealth has been mandated under the Federal Clean Air Act to alter and improve its inspection of vehicle emissions because the state is not attaining acceptable air quality levels. Under congressional authority, the United States Environmental Protection Agency can impose growth and highway fund sanctions on any jurisdiction that fails to implement inspection programs.

To make sure that does not happen, the Department of Environmental Protection (DEP) and the Registry of Motor Vehicles (RMV) have been working together to design and implement a new motor vehicle safety and emissions inspection and maintenance program. A contract was awarded in January to Keating Technologies of Arizona to act as the network contractor for the new program.

Under the new "Emissions Checkup" program, motor vehicle inspections will be administered through a network of local test and repair stations. It is anticipated that 4.2 million inspections of cars, trucks and buses will occur each year. The inspection will consist of emissions and safety tests, with the emissions test occurring every two years and the safety test occurring annually.

The new motor vehicle inspection and maintenance program is designed to seamlessly integrate Emissions Checkup with the existing safety inspection program. Motorists will still obtain inspections from a large network of private inspection stations. Many of these inspection stations will perform both inspections and repairs as they do today. However, the technology behind the inspection will be up-to-date.

Under the new contract, Keating will partner with DEP to manage Emissions Checkup and assist the RMV in improving the efficiency of the safety program. The contractor will install workstations and other new

sophisticated equipment in hundreds of garages across the Commonwealth and link them together. This equipment includes a dynamometer, which is a treadmill-like device that simulates actual driving conditions to evaluate exhaust gases. There will also be a new computer which produces vehicle-unique windshield stickers and provides a real-time link to the RMV, allowing unprecedented enforcement ability.

Officials from DEP and the RMV believe that through the use of new technologies, a balance can be reached which optimizes consumer convenience, industry concerns and environmental requirements. Emissions Checkup will replace the existing emissions test, which is seriously outdated. It will be far more cost effective than the current emissions program because the high tech inspections will be more accurate and it will be more convenient for motorists who will now only need an emissions inspection every two years.



Implementation of the new program is scheduled to occur this October.



# *CHSB Executive Director Focuses The Delivery Of Public Safety Information*



Photo by Jerry Sheredo

Maureen W. Chew has served as the Executive Director of the Massachusetts Criminal History Systems Board (CHSB) for the past year. Created in 1972 by the Criminal Offender Record Information (CORI) Act and governed by an eighteen member board

of members of the criminal justice community, the CHSB serves as the hub for information services to the state's criminal justice community. "Some staff who have been here for over twenty years remember dealing

with index card files," said Ms. Chew. "Now there is probably no facet of public safety that we do not deal with."

The CHSB operates the Commonwealth's Criminal Justice Information System (CJIS) and Ms. Chew oversees a staff of 78 technical, legal and administrative personnel. The fully computerized

CJIS system consists of mainframe computers, a statewide data communications network and over 2,500 data terminals, personal computers and mobile data terminals. CJIS is also the interface with out-of-state criminal justice

agencies, providing access to Massachusetts data, including criminal records. The CJIS data center is available to users seven days a week, twenty four hours a day, and processes over 750,000 electronic messages every day.

As the head of an agency that must operate seven by twenty four, Ms. Chew said she faces the challenge of delivering services and enhancing a system that has an ever expanding user base which must deliver an increasing amount of public safety information. Currently, Ms. Chew and her staff are working to insure that the CHSB is Y2K compliant. The CHSB has developed and implemented a Y2K plan for all CJIS programs, external interfaces and network infrastructure. "Year 2000 compliance is our number one priority and internally we are in good shape," she said. "We are working closely with the courts regarding some remaining issues with the CORI data base and I expect that we will be fully compliant by June."

The Criminal Offender Record Information (CORI) data base disseminates criminal record information to the criminal justice community and the general public. Last year, CHSB's CORI Unit processed and certified criminal

records requests for over 5,200 state, county and municipal agencies, as well as the general public. This amounted to over 500,000 requests, which averaged approximately 11,000 requests per week.

Once Y2K compliance has been achieved, Ms. Chew and her staff will focus on the longer term needs of Interstate Identification Index (III) compliance. Under III, Massachusetts is transitioning its criminal history reporting to a fingerprint supported records system. In order to participate in III states are mandated to provide on-line, fingerprint supported criminal history information. Failure to comply with this federal mandate could jeopardize the Commonwealth's ability to query and receive criminal history information data from the FBI and other states and might lead to the loss of federal funding. The CHSB has been working with the Massachusetts State Police Identification Section in preparing a III readiness plan that will be submitted to the FBI this summer. With the deployment of the Commonwealth's new statewide Automated Fingerprint Identification System (AFIS) scheduled for this fall, it is anticipated that III compliance will be achieved in October 1999.

---

*The CJIS data center  
is available seven days  
a week, twenty four  
hours a day, and  
processes over 750,000  
electronic messages  
every day.*

---

# IT BOND II UPDATE

## *Web Based System Improves DYS Case Tracking*



The Massachusetts Department of Youth Services (DYS) had an important technology decision to make last year. The agency needed to become Year 2000 compliant and was facing new legislative mandates and increased caseloads. The agency's mainframe client tracking application was not up to the task and had to be enhanced or replaced.

"Our organization is changing," said DYS Director of New Systems Development John Vasily. "We're trying to provide a greater level of service and we need a system that can be used by our managers in the central offices as well as our case workers in the smaller field offices. We were faced with the choice of replacing the existing system or upgrading it."

Working with the Waterfield Technology Group, DYS chose to replace the old technology with a Windows based, web enabled intranet client tracking application. The intranet application allows for relational database support, a partitioned approach to application development and centralized deployment. The Microsoft DNA (Distributed InterNet Application Architecture) also provides an application development model for constructing Windows and distributed intranet applications. The tools selected for the project include Visual Studio 6.0 (which includes Visual Basic 6.0 and Visual Interdev 6.0), Microsoft Transaction Server 2.0, Internet Information Server 4.0, and Oracle 8.05.

Before settling on an application, Mr. Vasily and DYS Systems group investigated other agencies to determine what worked and what did not work. "This helped us avoid a lot of pitfalls," he said. The new system has been up and running since March at eleven sites across the state and it is performing well. DYS tracks an average daily population of 3,250 juveniles: the pre-trial population consists of around 250 detainees with the remainder as adjudicated by the court and committed to the department. DYS staff uses the application on a seven-day a week, twenty-four hour a day basis.

With the application in place, DYS is now Y2K compliant and the agency has a strong technical foundation to build upon. But Mr. Vasily hopes the real beneficiaries will be the clients of DYS. The new system allows DYS caseworkers to enter data and follow up entries at the point of contact in the community where the clients must report. "We can now enter data more quickly and accurately," said Mr. Vasily. The improved data on the system helps DYS make better decisions in a more timely manner.

"The two mandates of DYS are public safety and to provide services geared towards rehabilitation," he said. "Hopefully, we can catch juveniles at an early enough stage, so that we can make a difference in their lives. This makes accurate client tracking an important task for the Commonwealth. The new system will help us to better reach our goals."

## *MassFinance Project Wins National Award*

The Office of the State Comptroller's MassFinance project recently received an award from the National Association of State Comptrollers as an Outstanding Project in State Financial Management. The award was presented at the organization's annual meeting in Portland, Oregon in March.

To be eligible for the award, a project was required to:

- Address an essential aspect of financial management in the public sector;
- Be operational;
- Include a new and reliable function or business application as part of the complete project; and
- Be expected to achieve significant success in meeting its stated objectives on an annualized or projected basis.

As reported in the Winter 1999 edition of the ITD Bulletin, MassFinance is a web site that delivers financial information to state employees, vendors and the general public. The two applications included in MassFinance are CommanCents, which provides answers to frequently asked financial questions and, VendorWeb, a secure site that allows vendors to look up Commonwealth payment information related to their company.



# IT BOND II UPDATE

## College Campuses Upgrade Networking Infrastructure

---

*"The investments that the state has made in these campus network upgrades have significantly improved the technical capability of the State and Community College campuses."*

---

Jack Warner, Vice  
Chancellor at the  
Board of Higher Education

The Massachusetts State and Community Colleges have been engaged in upgrading their networking infrastructure to enhance their readiness for 21<sup>st</sup> century education. During fiscal 1998 and 1999 these efforts have been paid for by a combination of IT Bond II funding, education technology supplemental funding, and campus matching funds at a level of two dollars of campus funds for every one of centrally provided funds. According to Jack Warner, Vice Chancellor at the Board of Higher Education (BHE), "The investments that the state has made in these campus network upgrades have significantly improved the technical capability of the State and Community College campuses."

The work completed to date includes each college connecting every classroom and office to campus local and wide area networks, bringing each campus network to a standard of 100 MIPS. Campuses may then connect to the UMass Massachusetts Information Turnpike Initiative (MITI) network for access to other campuses and to the Internet. (See the IT Bulletin's Summer 1998 issue for more information about MITI.) Most

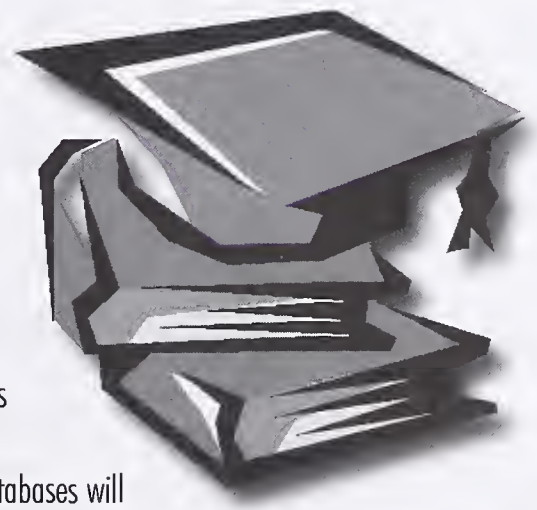
campuses have completed this work; the remainder will complete it in FY2000. "That every office and every classroom in the State and Community College systems can now reach the Internet is a significant development. It paves the way for more connectivity between and among campuses and will support distance learning and other shared resources," said Vice Chancellor Warner.

The campuses still need to build instructional classrooms for distance learning and train their campus staffs to use this technology. If sufficient funding is available, the BHE plans to fund four regional training centers with \$200,000 initially to set up each center, and \$200,000 a year each for operations. Campuses will have the opportunity to bid for hosting these training centers.

In their future plans, BHE is working jointly with UMass on related initiatives such as choosing compatible microfilm readers for all campus libraries, and on providing shared databases to support business and research. These shared databases will be hosted centrally and made accessible by all campuses. The availability of these databases, while

not saving money, will make more information available more widely to students, faculty and staff.

"We worked hard to distinguish between periodic capital investments and on-going operational funding so the campuses will continually renew their investments in staffing support and desktop units while the state's investment is made in longer term items," said Vice Chancellor Warner. Once the campuses have achieved their distance learning and library integration goals, BHE plans to seek funding for acquisition of management information system software for the State and Community Colleges.



# *Who's Doing What Regarding:*

## *Y2K PMO Changing With The Times*

As the Governor's target date of June 30, 1999 for all Year 2000 remediation work nears, the Year 2000 Program Management Office has changed its mode of operation. The last of six quarterly reports covering the fourth quarter of 1998 was presented in testimony to the House and Senate Joint Committees on Science and Technology in February. Reporting is now performed monthly using a revised format which highlights status in specific areas of Year 2000 remediation work, including software applications, LANs, phones, and PCs.

### a) **Executive Branch Coordinating Committee Formed**

The Governor has formed a Coordinating Committee consisting of representatives of each Cabinet Secretary and Department Head to coordinate and oversee Year 2000 work in the Executive Branch. The Committee includes participation by the Judiciary, the co-Chairs of the House and Senate Joint Committees on Science and Technology, the Massachusetts Emergency Management Agency, the Office of the State Auditor, and the Department of Revenue's Division of Local Services which is charged with outreach to cities and towns in the Commonwealth.

The Coordinating Committee has already held three meetings, at which each Secretariat or Department reports the status of any remaining remediation work and their outreach efforts to their regulated communities in the Commonwealth. Presenters at the most recent meeting included Public Safety, Health and Human Services, and Elder Affairs. MEMA and DOR's Division of Local Services described their support of towns' emergency preparedness planning and general awareness and remediation work, respectively.

### b) **Next Change will include Business Continuity Planning**

As the June 30 deadline is reached, the Program Management Office will again change modes of operation, adding consulting support for Business Continuity Planning for the Commonwealth-Critical Agencies which were approved in the March Coordinating Committee meeting. Additional staff joined the PMO in April to support Business Continuity Planning; their first assignments focused on Health and Human Services agencies and Public Safety agencies.

## *Current Y2K Status Of PMO Tracked Projects*

### a) **% Completion Projected by June 30, 1999**

As of April 30, 71% of the 542 application systems remediation projects being tracked by the PMO were complete. By the June 30, 1999 deadline for all work, 94% of the application systems, 92% of the LANs, 88% of the phones, and 87% of the PCs will be complete. Twenty-two of the 171 agencies which the PMO tracks have already completed all work in these areas.

### b) **Monthly Report posted on Y2K PMO Web site**

Each Monthly Report is now posted on the Year 2000 PMO Web site, located at <http://www.state.ma.us/y2k>. The report depicts agency summary status for the previously mentioned areas.

### c) **Supplemental Appropriation of \$20 million passed**

The Senate and House have both approved a \$20 million appropriation for Year 2000 work. The additional funds were authorized to meet requests from a number of agencies to address unanticipated remediation needs and to develop and implement contingency plans. The disbursement of the funds is being directed by the Year 2000 Program Management Office to fulfill requests already received. Agencies are required to report how the funds are used prior to their allocation, to ensure the legislature is kept apprised of how earmarked funds are expended.



# THE YEAR 2000

## *Economic Development Reaches Out to Business on Y2K*

Some months ago, the Department of Economic Development saw disturbing results from a poll addressing Year 2000 awareness and readiness in the Massachusetts business community. The poll results indicated that as many as 40% of local businesses did not think that they needed to be concerned about Y2K. The Department of Economic Development designated the Massachusetts Office of Business Development (MOBD) to work with local businesses on the Year 2000 challenge. MOBD typically works with Massachusetts businesses, as well as with businesses considering relocating to Massachusetts.

At the same time, local businesses were looking for a state government partner in addressing the Y2K issue to complement their federal partners at the National Institute of Standards (NIST — a manufacturing-oriented agency), the U.S. Department of Agriculture, the Small Business Administration (SBA), and the Small Business Development Centers (SBDC) located at UMass campuses. According to Bruce W. Stebbins, Director of Business Programs at the Department of Economic Development, "MOBD and its Federal partners want to be a powerful resource to help companies meet Year 2000 needs."

MOBD has taken the role of promoting awareness: making sure that Massachusetts businesses are aware of the Year 2000 challenge and that they can find help in the form of guidance as well as financial assistance. To this end, MOBD has conducted free Y2K workshops with more than 200 small businesses. They also publish a list of web sites with relevant information. To insure that they reach all businesses in Massachusetts and in conjunction with the Department of Employment and Training (DET), they recently distributed a flyer to all local businesses with DET's Unemployment Insurance bills. The flyer entitled, "Are you ready to do business in the year 2000?" explains the problem, its size and importance. It also includes web site addresses and phone numbers of agencies offering Y2K assistance to businesses. This flyer is on the state's Y2K web site at <http://www.state.ma.us/y2k> under Outreach or Other Links. MOBD also worked with the Massachusetts Department of Food and Agriculture in promoting agriculture Y2K awareness at the State House.

MOBD is attempting to secure an additional \$400,000 in their budget to match \$400,000 available if matched from NIST. The NIST funds are designated for Y2K services through June 30, 2000. MOBD intends to use this funding to hire professionals to assist small businesses that lack needed resources, to purchase a supply of NIST tool kits, and to conduct more Y2K workshops.

Congress has recently passed legislation providing additional funding to the SBA for the purpose of assisting businesses in meeting Year 2000 needs. In addition, MOBD has financial specialists available in its regional offices to help companies with financial planning. "This is an important issue," said Stebbins. "We want businesses to take the Year 2000 challenge seriously."

**MANUFACTURING EXTENSION PARTNERSHIP**  
HANDS-ON HELP FOR MANUFACTURERS



*University of Massachusetts Extension*



**MASSACHUSETTS**  
POWERED BY INGENUITY

### Resources and Services

Manufacturers, or small businesses requiring technical assistance or interested in Y2K workshops, can call MassMEP at 1-800-MEP-4MFG, or the Y2K Help Center for Small Business at 1-800-Y2K-7557, or visit their web site at <http://www.mep.nist.gov>.

Small businesses can call 1-800-U-ASK-SBA, or locally for management and loan guarantee assistance, 617-565-5590. To access SBA's Y2K Fax Back service, call 1-800-RU-Y2K-OK. Or visit their web site at <http://www.sba.gov>.

Agricultural businesses can call 1-413-545-4800, or visit UMass Extension's web site at <http://www.umass.edu/umext/y2k>.

Companies needing general business assistance or access to financing for their Y2K plan, can call 1-800-5CAPITAL, or visit MOBD's web site at <http://www.state.ma.us/mabd>, or the state's Y2K web site at <http://www.state.ma.us/y2k>.

# Online Government

## *On The National Agenda*

The National Electronic Commerce Coordinating Council (NECCC) is a national alliance of state government organizations dedicated to the advancement of electronic commerce within states. The alliance is comprised of the National Association of State Auditors, Comptrollers and Treasurers (NASACT), the National Association of State Information Resource Executives (NASIRE), and the National Association of State Procurement Officials (NASPO).

Massachusetts has been active in the creation and continuing work of this organization. Gary Lambert, Deputy Purchasing Director, serves on the executive board. Claudia Boldman from ITD's Strategic Planning Group and Don Greenwood, ITD Deputy General Counsel, have been very active with several of the Council's workgroups. Marty Bennisan, State Comptroller, and his staff have also been key contributors to the current agenda.

This year, the NECCC board of directors expects to pursue strategies to advance electronic commerce within the states including:

- Facilitating the coordination of electronic commerce adaptation in the states through various means, such as participation in pilot projects and the dissemination of best practices in state electronic commerce.
- Holding its 3<sup>rd</sup> Annual Conference on Electronic Commerce in the States in November 1999 to study innovations in technology and review successful electronic commerce projects.
- Conducting its Annual Survey on Electronic Commerce in the States, to be reviewed at the annual conference.
- Maintaining and expanding its web site for the promotion and distribution of association materials.

Much of this work is being done within several issues-related workgroups. One of these workgroups is planning to hold regional meetings with state Electronic Commerce Coordinators. These one-day meetings will provide a forum for state coordinators to meet each other and discuss electronic commerce/online government planning and management issues of mutual interest. Claudia Boldman is coordinating the Eastern States meeting. It will take place in Washington DC on June 28, 1999 in conjunction with the E-Gov '99 Conference.



Another workgroup that includes significant Massachusetts staff involvement is investigating the current use of electronic payment processing (credit cards, debit cards, etc.) among the states. A survey instrument is being developed to poll the states on current practices. Of special interest is the states' handling of processing fees paid to vendors. Survey results will be posted on the NECCC web site and will be presented at the annual Conference on Electronic Commerce in the States to be held in November. The workgroup is also hosting an Electronic Payments to Government seminar held May 12, 1999 in conjunction with the annual Cash Management and Electronic Commerce Conference held May 13-14 in Washington DC.

Gary Lambert is working actively with the Electronic Procurement Systems workgroup. Through a survey of the vendor community, that workgroup is attempting to identify the types of electronic commerce systems currently available, build a database from the survey results, and make the data available to the public through the NECCC web site. Periodic updates of the database are also planned.

Please visit the NECCC web site at <http://www.ec3.org> for updates on the work of the organization and its workgroups. The results of the Second Annual Survey on Electronic Commerce in the States are also available online at <http://www.naspa.org/ECCC/survey.html>.



## ***Communication Services Bureau (CSB)***

### **Year 2000 Readiness and Contingency Planning**

CSB is preparing Y2K Readiness Statements for the TCP/IP Routed Network and the SNA Legacy Network to be posted to the state's Year 2000 web site at <http://www.state.ma.us/y2k>. CSB will also publish a Y2K Contingency Plan for the TCP/IP Routed Network, and determine any special contingency requirements from mission critical agencies and applications.

### **VPN Dial Service**

ITD is seeking a single vendor to provide a suite of Remote Access and Virtual Private Networking services to all Commonwealth agencies through a Master Service Agreement meeting the varied needs of the Commonwealth's enterprise. ITD anticipates that the remote access solution will be completely outsourced, with the winning vendor supplying and managing all equipment, software, and services, including any located at ITD. ITD further anticipates that participating agencies will remotely administer their user access lists, regardless of the directory location.

The winning vendor will provide secure and authenticated transmission of data between client PC systems and Commonwealth servers using an IP network connection. This service may also provide client and server software, specialized network routing and filtering, encryption/decryption devices, administrative functions for agency management of users population, help-desk support of all users, etc., all on a 24 hour, 7 days a week basis. The winning vendor must also be able to provide a dedicated authenticated network connection between two or more Commonwealth enterprises separated by geography (edge-to-edge VPN). Independent organizations, each using IP-based LAN technology, may need to be virtually connected. A solution using VPN technology and the public Internet must be proposed.

### **Exchange Enterprise Directory**

CSB will design and implement multiple Microsoft Exchange™ bridgehead servers to deliver a more robust messaging architecture while eliminating a single point-of-failure.

### **Web Security Architecture**

CSB will expand monitoring, logging, and reporting on a range of security events; upgrade hardening guidelines for firewall and operating systems; develop intrusion detection and remote monitoring capabilities; and develop a number of security architecture options to support Online Government web applications.

## ***Data Center***

### **Y2K Customer Support**

The Data Center will continue to provide the usual technical, database and operational support to its customers, and is providing Y2K support as well. Two Platinum Technologies products have been purchased for which training has been provided to assist customers in their Y2K testing on the CMOS. The TransCentury Date Simulator tool allows customers to test their remediated programs in a simulated system-date environment. Customers can establish a future date for testing purposes and any calls by their programs for today's date will get that future date instead. The TransCentury File Age tool allows customers to test their remediated programs by reformatting or aging dates in their databases and files.

### **Upgrading the CMOS Operating System to OS/390**

Upgrading the operating system involves the installation, configuration and testing of over 500 IBM modules and testing of all of the online regions and the databases. The Data Center is taking this opportunity to reduce the number of software versions in use and require users to process their CICS online at the current level. The purpose of the upgrade is to bring the operating system into Y2K compliance which also paves the way for Electronic Commerce, Open Edition, improved TCP/IP protocols, and Web Enablement.

### **CommBridge**

The Communications Bridge, also known as CommBridge, continues to be rolled out to departments, allowing applications to share data very easily and simply. EAB, with the assistance of Systems Engineering, Inc., has recently implemented a new data sharing model called the deferred paradigm. This will allow one application to request or send data to another application in real time while the second application can respond right away (real time) or at a later time (deferred). This new model, expected to be used extensively by the new HR/CMS system, will give CommBridge added flexibility to meet the needs of a wider group of Commonwealth applications.

## ***Enterprise Applications Bureau (EAB)***

*Continued on page 10*

# More IT BOND II UPDATES

## *PayInfo Provides Easy Access To State Employees*

State employees now have a quick and easy way to track their payroll information. PayInfo, a pilot project implemented recently by the Office of the State Comptroller (OSC), gives Commonwealth employees access to their payroll information over the web or on the telephone twenty-four hours a day, seven days a week.

The pilot program is currently providing this access to approximately 600 employees from the Department of Environmental Management, the Human Resources Division, the Information Technology Division, and the Office of the State Comptroller. To utilize the system, the pilot participants are required to have a user ID and personal identification number (PIN) that will ensure privacy and confidentiality. To ensure that privacy and security, all personal information is scrambled over the internet. For example, "The Commonwealth of Massachusetts" may look as follows when it is scrambled: "NRIDWJLWAZZQCKZBWJTFB3-HW". The telephone access operates in the same manner with a touch-tone phone.

According to Comptroller Martin Benison, the idea for PayInfo grew out of the Performance Enhancement Commission that was created by the State Legislature in 1998. This commission, which is chaired by the Comptroller and the Secretary of Administration and Finance, is charged with identifying and developing projects that enhance the performance of state government.

Project Director Pat Ghannon said that the first in the notion project has been averaging about 225 users out of the 600 pilot participants since it began operating in early April. She added that the initial user feedback has been very positive. Pilot participants can access information going back one month and the data is provided in a format similar to their printed pay stubs. Ms. Ghannon also said that initial concerns regarding privacy seem to have been overcome. To provide a greater comfort level for the users, no banking data, social security numbers or home addresses are included.

Diane Ledwell, Director of Technical Service for OSC said the positive comments particularly focused on the 24/7 accessibility. As an example, she pointed to an individual who might be balancing their checkbook on a Sunday evening and needs access to their payroll information.

Under state law, the Comptroller's Office is still required to provide paper stubs. PayInfo serves as a full time enhancement to that traditional method of providing payroll information. "It's great for people like me who don't always give their spouses their pay stubs," said Comptroller Benison. "My wife loves it."

The pilot project is scheduled to end in late May when an implementation plan will be put in place. Once the plan is developed and compatibility with HR/CMS is assured, the OSC will work with payroll liaisons and offer drop in training sessions to participating agencies as part of a wider rollout.

*Continued from page 9*

### **Y2K**

In partnership with the Office of the State Comptroller, EAB is in the process of selecting vendors to perform IV&V services for the Commonwealth's statewide systems: MMARS, PMIS, CAPS, and PCRS. The focus will be on a code review for these applications which are written in COBOL and/or Natural, with a smattering of PL/I.

## *Strategic Planning Group (SPG)*

In addition to coordinating the Commonwealth's Y2K compliance efforts and the beginnings of Online Government applications (as described elsewhere in this issue), SPG provides coordination and oversight of individual agency IT projects funded through the Commonwealth's IT Capital Bonds. SPG also provides in-house consultation services for state entities engaged in developing strategic IT plans, planning major procurements or exploring new technologies. SPG further develops Commonwealth standards for existing and new technologies, and organizes vendor days where agencies can keep abreast of new technologies, products and services while networking with colleagues and vendors.



# More IT BOND II UPDATES

## *Inmate Management System Will Increase Data Accessibility*

In nearly every aspect of life, the age of automation has brought us into a new world and corrections is no exception. In response to the growing need for accessible and accurate information, the Massachusetts Department of Correction (DOC) is moving forward to take advantage of technology to increase its ability to access and share data. The agency is in the process of developing a comprehensive, integrated database, known as the Inmate Management System (IMS), which is scheduled for implementation beginning next year.

The growing inmate population, combined with the increasing need to maintain more detailed information about each offender, requires a more sophisticated method of record keeping. Additionally, because the DOC facilities and support divisions are spread over a wide geographic area, it is impractical for staff to conduct their work on independent and isolated computer systems. The IMS, a centralized database which will be accessed from a network, is extensive in scope. It includes topic areas such as inmate demographics, criminal history information, disciplinary information, program needs assessment and planning, date computation, and housing information. The ability to maintain a large volume of inmate data online will enhance security and classification functions, promote both internal and external communication, and create a better tool for research and trend analysis.

It is anticipated that the IMS will, over time, link up with other criminal justice agency's databases, including the State Police, the Massachusetts

Trial Courts, and the county Houses of Correction. On a national level, the IMS is designed to support the Commonwealth's efforts to meet Interstate Identification Index (III)/NCIC 2000 standards. Additionally, authorities such as the FBI, Immigration and Naturalization Service, Social Security Administration, and the Department of Revenue are increasingly becoming partners in offender management. More advanced and compatible systems are necessary to support these agency collaborations.

The development of the database is only part of the initiative undertaken by the Department. To review its effectiveness and efficiency in the framework of communication technology, the agency embarked on a reengineering effort in 1996. Following an initial study of the reception process, a comprehensive assessment of the system was conducted by a multi-disciplined Reengineering Task Force. Detailed plans of recommended agency changes were later developed by subgroups comprised of agency staff who

reviewed policies and procedures in the context of automation. These recommendations were ultimately used as the foundation for the development of the IMS. Areas where significant process change is anticipated include: the admission process, central records, date computation, criminal record processing, and the classification process.

Preparation for the IMS is well underway. The infrastructure which will support not only the IMS, but also future initiatives such as voice and video over the networks is being developed. Staff training is active in change management, process change, and computer skills development. The DOC looks forward to the implementation of the IMS, when the ability to gather, store, retrieve, and analyze information is made easier, supporting DOC operations and ultimately enhancing public safety.

## INFORMATION TECHNOLOGY DIVISION

One Ashburton Place, Room 801  
Boston, MA 02108

Presorted

First Class

U.S. Postage Paid

Permit No. 2226

Worcester, MA

The Information Technology Bulletin is a quarterly newsletter of ITD's Strategic Planning Group. One of the SPG's tasks is to act as a clearinghouse for IT information. This publication furthers that goal. Please send correspondence to Managing Editor, Eloine Socho, the Information Technology Bulletin, Room 801, One Ashburton Place, Boston, MA 02108

Voice: (617) 973-0865  
FAX: (617) 727-3766  
Email: Eloine.Soch@state.ma.us

This publication is also available on the web at  
<http://www.mognet.state.ma.us/itd/bulletin/>

Next Publication: Summer 1999

\*\*\*\*\*SHGLP  
Leonard Adams  
UMass - W.E.B. DuBois Library  
Government Documents  
Amherst MA 01003

If any part of the address on this newsletter is incorrect, mark the changes on a photocopy and send or fax the copy using the information to the left.



Printed on Recycled Paper

### *A Message From The CIO*

Y2K continues to dominate the working day and I suspect it will well into 2000. Encouraging thought. However, it isn't the only project and as resources become available, we intend to begin work on several new projects. I suspect you're going to do the same. From my conversations with business managers, they want to move on to other areas besides Y2K related issues and are looking forward to the day when they can. ITD, as part of the spending plan process will be asking you about these undertakings along with your on-going maintenance plans. We view information technology as an asset and we want to move towards a model of value management rather than cost management. One thing we have observed from the Y2K effort is, in some cases, agencies let the maintenance slide on their infrastructure, probably in favor of new programs. This was done under the assumption that there would be a large infusion of money (probably of the capital variety) at some future point to bring things back up to date. There are several reasons why this isn't the best approach, but suffice it to say, it is one of the issues ITD and the Budget Bureau will be looking at as FY00 begins. So, start thinking about this as your CFO is going to be asking in order to complete the spending plan.

David Lewis

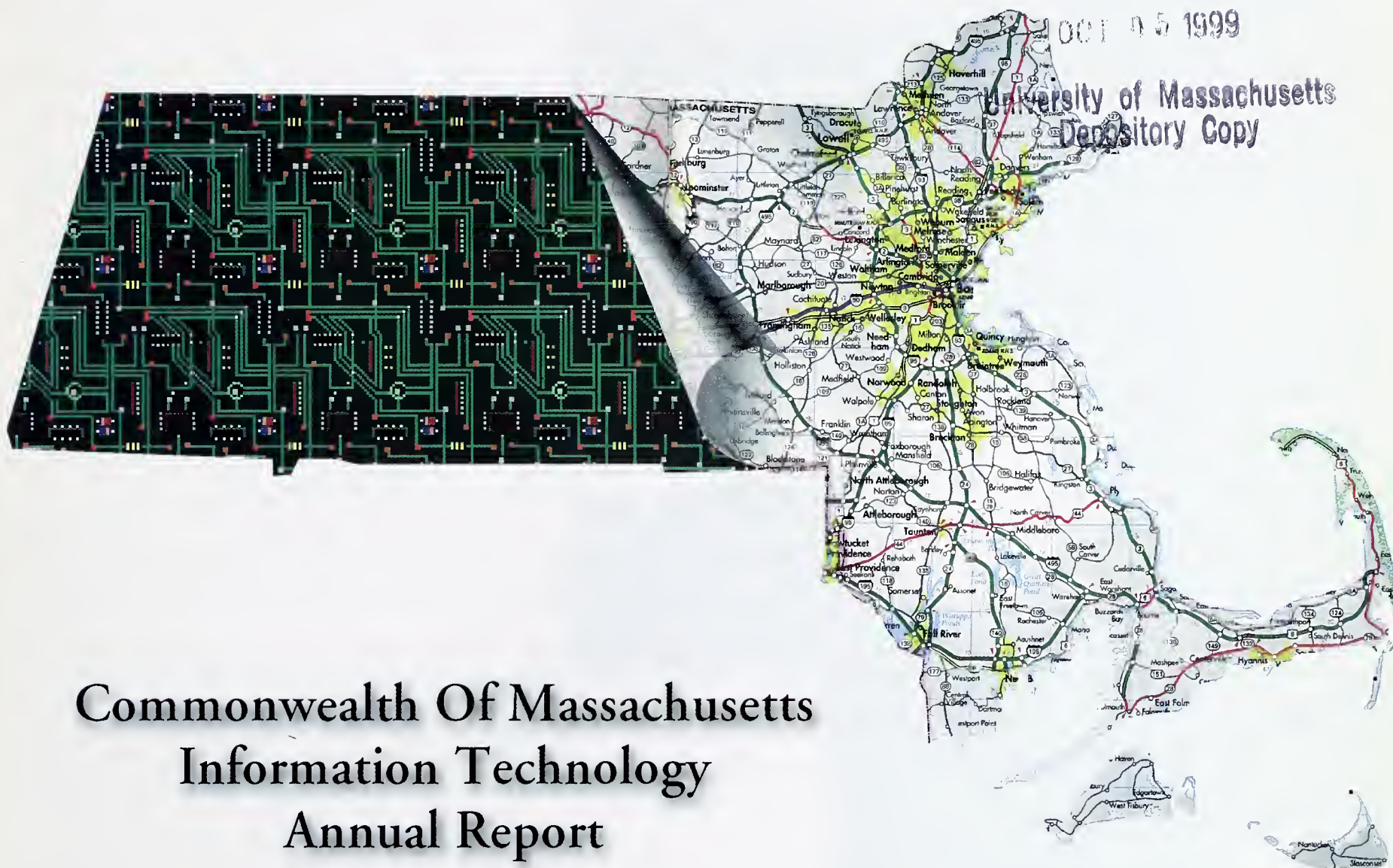


MASS.  
AF32.8:  
5/3/  
Spec. ed.

GOVERNMENT DOCUMENTS  
COLLECTION

001 05 1999

University of Massachusetts  
Depository Copy



# Commonwealth Of Massachusetts Information Technology Annual Report

Fiscal Year 1999

*A Special Edition Of The  
Information Technology Bulletin*

# Commonwealth Of Massachusetts Information Technology Bulletin

Volume 5, Number 3, Summer 1999

## A Special Edition

### in This Issue

#### **Message From Secretary Natsios ..... 3**

#### **FY99 Online**

CampMA System Exceeds Goals .....	4
Online GIS .....	5
RMV Web Site Wins Award .....	6
DYS Improves Case Tracking .....	7
Comptroller's Office Continues Innovation .....	8
MCAD Improves Complaint Tracking .....	10
OIG Upgrades Its Information Technology .....	11

#### **FY99 Toolbox**

UMass Moves Ahead .....	12
All College Campuses Reach The Internet .....	14
EOEA Reinvents Information Systems .....	15
HR/CMS Makes Great Strides .....	16
DMA & ITD Reinvent Medicaid Processing .....	17

#### **Year 2000**

Y2K Resources For Business .....	18
Year 2000 Status Report .....	19

#### **IT Bond II FY99 Preliminary Expenditures . 20**

#### **Preliminary FY99 IT Spending ..... 21**

#### **Preview of Some IT Plans For FY2000 ..... 22**

#### **Message From The CIO ..... 23**

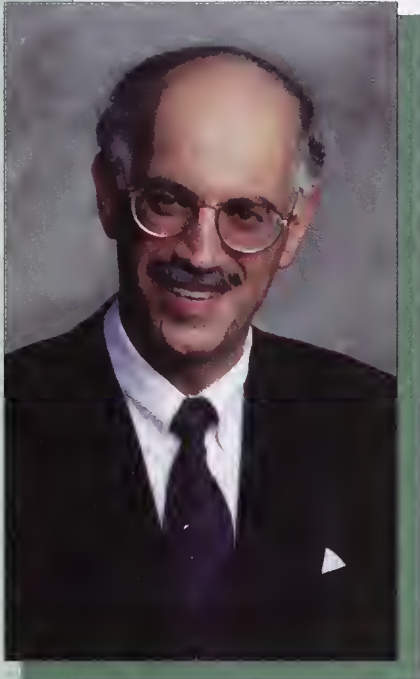


# MESSAGE FROM SECRETARY NATSIOS

GOVERNMENT DOCUMENTS  
COLLECTION

00 10-1

University of Massachusetts  
Depository Copy



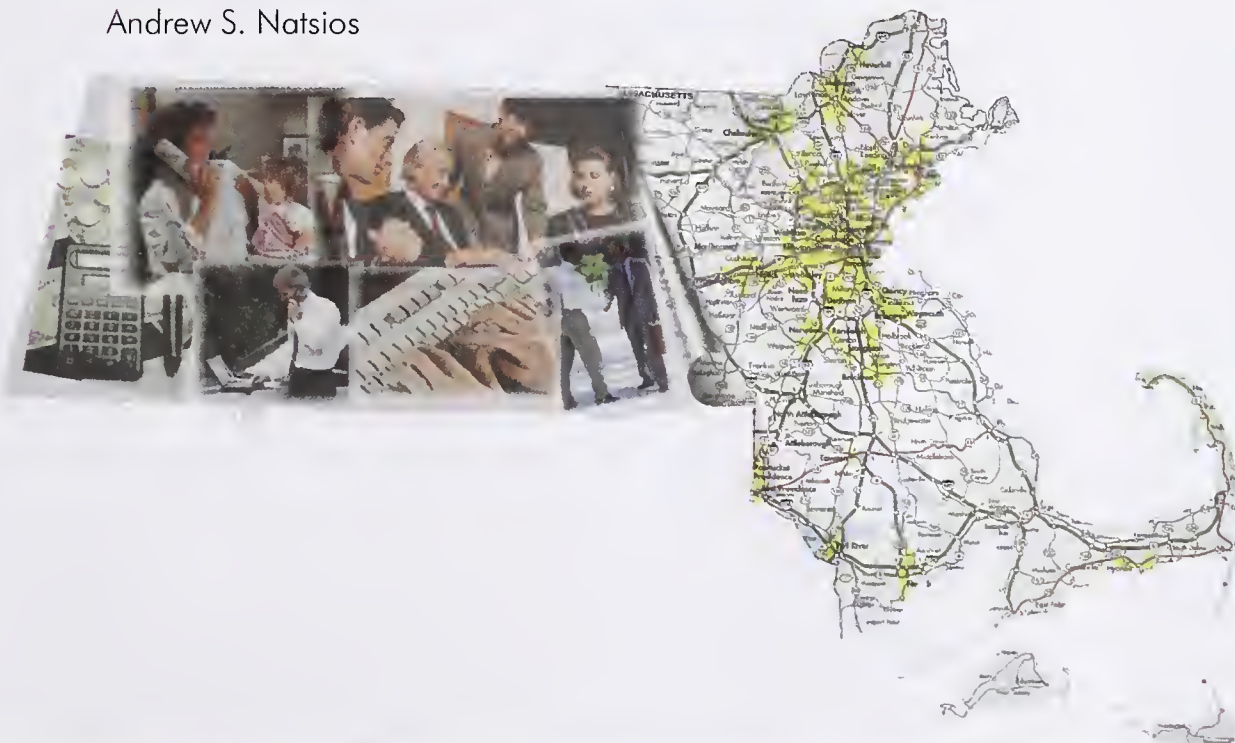
As Year 2000 quickly approaches, the Massachusetts Information Technology Division will continue to meet Governor Cellucci's executive order calling for no material disruptions in state operations or services. Once we have this priority behind us, we will have more resources to focus on information technology projects that will have a measurable effect on the Commonwealth, such as:

- HR/CMS which will continue to pay employees while replacing two ancient payroll systems.
- EMall which enables Massachusetts government to use contracts solicited and negotiated by other states.
- When DMA moves the Medicaid Management Information System (MMIS) into online claims submission at the point of service, providers will be able to verify coverages before providing service. Online claims submission will also reduce data center overhead by reducing tape handling, number of tapes required and possibly old tape drive technology.

Massachusetts has a storied technological history, and we are presently considered one of the world's high tech capitals. For this reason, we must have a state government that meets the high standards of the private sector businesses that drive our economy. We are fortunate to have the support of Governor Cellucci and Lieutenant Governor Swift in our efforts to give Massachusetts the best possible information technology systems of any state in the nation.

Yet, we must remember that technology is only an enabler. We are a Commonwealth of the people, not a Commonwealth of routers and circuit boards. It is incumbent on us to take advantage of innovations in technology to better deliver public services to the more than six million residents of the Commonwealth.

Andrew S. Natsios







Tent Camping at  
Nickerson State Park -  
©Kindra Clineff 1997

**A**fter just a few months in operation, the new CampMA campground reservation system has surpassed the Department of Environmental Management's (DEM) seasonal volume projections. The new central reservations system, operated by ReserveAmerica, Inc. of Ballston Spa, NY, has generated more than 32,000 reservations since going live on March 3, 1999. DEM had anticipated approximately 27,000 reservations this season among the twenty-eight state park and forest campgrounds.

The CampMA system was developed in conjunction with the Commonwealth's Performance Enhancement Commission, an initiative of the State Legislature to improve government efficiency and customer service. The CampMA system expanded the number of campgrounds offering reservations from

## NEW CAMPMA SYSTEM EXCEEDS RESERVATION GOALS

11 to 28 and increased the number of sites available through reservations within each campground. In addition, the system introduced credit card payment capabilities and now offers customers toll-free access (1-877-1-CAMP-MA) to camping reservations 16 hours per day during the peak camping season. Soon, the system will offer 24 hour per day access though the Internet at <http://www.reserveamerica.com>.

The new system has offered Massachusetts residents and visitors convenient and fair access to the State's many popular campgrounds. Approximately 70% of the reservations to date are for Massachusetts residents. Non-resident reservations come from every state in the nation (including Alaska and Hawaii), seven Canadian provinces, Puerto Rico and even a few European nations. Nickerson State Park on Cape Cod and Salisbury Beach State Reservation on the north shore are in close competition for the "most reservations" title. To date, each has more than 5,000

confirmed reservations for the season.

The new system has had its challenges. An estimated 600,000 calls were attempted on the first day of the new system. The surge disabled an MCI phone switch and prompted the phone company to limit access to protect their network. Educating customers to the new system, training park and call center staff, and maintaining Internet connections between campgrounds and the central database have all required close attention from DEM administrators and ReserveAmerica managers and technicians.

Despite its challenges, the CampMA system has helped DEM to achieve a new level of access and customer service in the State's public campgrounds. The Department and ReserveAmerica will be working closely together over the coming year to refine and enhance the system to provide even better service to Massachusetts campers.



## ONLINE GIS

The Internet is wonderful, but it can be frustrating – many users are stuck at the end of a thin straw instead of a fat pipe. The MassGIS program in the Executive Office of Environmental Affairs has found that a mixed strategy for distributing GIS data, software, and maps works best for its users. The Internet is great for answering questions, so MassGIS provides up-to-date project information, data layer documentation and interactive technical support at <http://www.state.ma.us/mgis>. This relatively low-tech use of the Internet hugely increases the effectiveness of limited staff – if even a fraction of the 5000 users a month visiting the MassGIS site called with a question the staff would be quickly overwhelmed. Customers particularly like the convenience of using the Internet to order standard products (such as hazardous waste site prioritization maps) and having instant access to technical information such as project status maps.

On the high-tech side, MassGIS has rolled out version 2 of the MassMaps application, which allows customers to create their own custom maps on-line interactively. Initially, about 50 users a day are being served by the mapping application, with traffic increasing steadily. The MassGIS program is also distributing GIS data on-line, with about 2000 hits a month on this service. Users have responded very enthusiastically to the download option, which allows them to update their GIS data without ordering new CDs.

But for ordering gigabytes of data, such as statewide orthophoto coverage at 1m resolution, traditional CD's still work best and

the MassGIS program continues to mail out about 2000 CD's a year, with free GIS software, to a variety of customers in educational, engineering and environmental organizations. And for those digitally challenged customers who don't have Internet access and don't want to learn to use GIS, there's the option of getting a plain old-fashioned paper map produced to their specifications - and it can even be ordered by mail from MassGIS at 20 Somerset St., 3<sup>rd</sup> floor, Boston MA 02108 or call 617-727-5227 x 308.





## RMV WINS CIO AWARD

CIO Magazine named The Massachusetts Registry of Motor Vehicles a 1999 CIO Web Business 50/50 award winner for its online business excellence.



Each year CIO magazine recognizes 50 Internet and 50 intranet/extranet sites that go beyond customary Web commerce practices to deliver outstanding business value. The Registry was one of five Internet winners from the public sector.

"We are honored that CIO Magazine has chosen our website as a winning Internet site. The Registry site offers our customers the opportunity to conduct transactions from their home or office, twenty-four hours a day," said Registrar of Motor Vehicles, Richard Lyons.

The third annual CIO award program distinguishes organizations around the world that have taken a distinct approach toward the use of the Internet or intranet in their business. "This year's winners show that more and more operational capability, direct customer contact and bottom-line business value is migrating to the Web. It's impossible to ignore the depth of the transformation that's occurring in enterprises of every shape and size," says CIO Editorial Director Lew McCreary.

### **Commonwealth of Massachusetts Registry of Motor Vehicles** <http://www.state.ma.us/rmv>

Until recently, the word Registry—shorthand for the state Registry of Motor Vehicles—was a Massachusetts synonym for lousy service. Ask any Bay Stater about the Registry and chances are you'd get an earful about spending half a day in line to renew a driver's license. State officials want to make such horror stories history. Among their initiatives is the Registry's Web site, with the playful motto: "Serving You Better. Seeing You Less." Using credit cards, residents can renew registrations, request duplicates, order vanity license plates or pay tickets online. They can also check Registry hours, download the state's drivers' manual, and get information on voter registration, the state's vehicle inspection and excise tax. Since its launch in July 1996, the site has served about 90,000 customers and generated more than \$3 million in revenue, says Deputy Registrar Larry McConnell. He estimates that the Registry handles routine tasks 10 to 20 times faster on the Web than in person. Sadly, some tasks, such as getting a new driver's license, still require a personal appearance. The good news: Recent Registry visitors measure the time spent standing in line in minutes rather than hours.

—Anne Stuart

Winners are selected by a panel of CIO magazine editors, writers, art designers and Web development experts. The panel of judges evaluates hundreds of nominated sites for their ability to use innovative Web techniques to deliver greater business value. In particular, the panel focuses on finding sites that successfully integrate creative design and high quality technical attributes. The judges measure how well the blend of technology and design contributes to the organization's overall business objective as well as the site's ability to meet the needs of the target audience.



# DYS IMPROVES CASE TRACKING, WHILE ACHIEVING Y2K COMPLIANCE



The Massachusetts Department of Youth Services (DYS) had an important technology decision to make last year. The agency needed to become Year 2000 compliant and was facing new legislative mandates and increased caseloads. The agency's mainframe client tracking application was not up to the task and had to be enhanced or replaced.

DYS chose to replace the old technology with a Windows based, web enabled intranet client tracking application. The intranet application allows for relational data base support and a partitioned approach to application development and centralized deployment. The Microsoft Architecture also provides an application development model for constructing Windows and distributed intranet applications.

The new system has been up and running since early this year at eleven sites across the state and it is performing well. DYS tracks an average daily population of 3,250 juveniles: the pre-trial population consists of around 250 detainees with the remainder as adjudicated by the court and committed to the department. DYS staff uses the application on a seven-day a week, twenty-four hour a day basis.

With the application in place, DYS is now Y2K compliant and the agency has a strong technical foundation to build upon. The new system also allows DYS caseworkers to enter data and follow up entries at the point of contact in the community where the clients must report. The improved data on the system helps DYS make better decisions in a more timely manner, thus providing increased benefits to the Department's clients.

The two mandates of DYS are public safety and to provide services geared towards rehabilitation. This makes accurate client tracking an important task for the Commonwealth. The new system will help DYS to better reach their goals.



## COMPTROLLER'S OFFICE CONTINUES INNOVATION

MASSfinance is an internet-based application providing both general financial information about the Commonwealth (CommonCents) and vendor-specific payment data to the Commonwealth vendor community (VendorWeb) efficiently and economically. They share financial data on the back-end and both are available twenty-four hours a day, seven days a week. MASSfinance has already won the 1999 'Best Practices' award from the National Association of State Comptrollers. On the Internet, MASSfinance regularly has over 2000 user sessions a week, which includes visits from Great Britain, Canada, and Australia. MASSfinance is available at <http://massfinance.state.ma.us/>.

CommonCents is an answer facility for 'frequently asked' financial questions. Users are able to get the 'big picture' of Commonwealth revenue and spending, detailed information such as department head salaries, and the revenue and spending activities of individual departments.



**CommonCents**  
*Answers to your frequently asked financial questions*

VendorWeb provides Commonwealth vendors with a self-service internet site where they can find answers to some of their most frequently asked questions, such as 'When am I going to be paid, how much, and by which departments?'. Because VendorWeb is always available, Commonwealth vendors can reconcile their accounts at their convenience.

The feedback on VendorWeb has been incredibly positive, with praise such as 'This is the most useful web site the state has ever created.' 'Thanks for giving us vendors such a helpful tool.' 'I think the system is a great idea.' and 'We love using this new system, I love having access to the information!!!'.

Commonwealth employees, citizens, and vendors will benefit enormously from this initiative. The time savings at the departmental level will be significant as vendors and the general public turn increasingly to the web to find answers to many of their own questions.

Department employees will be able to interact with vendors using the same source of information, and refer common financial inquiries from the public to MASSfinance.

**VendorWeb**

*Financial Resources for Commonwealth Vendors*







Wholesale club shoppers know that suppliers can offer lower prices when sales volumes are high. Suppliers know that sales volume increases with high foot traffic. Internet users know that they can utilize the Web to make secure purchases from their home computer. With these win-win examples at hand, it seemed logical for states to combine their purchasing power to drive costs for business-to-government transactions down using existing Internet technologies.

As a result, the Commonwealth of Massachusetts is sponsoring the Multi-State EMall pilot through three cooperating agencies: Operational Services Division (OSD), Office of the State Comptroller, and the Information Technology Division (ITD). A procurement tool for state governments and their suppliers, the EMall is the first government-to-business multi-state electronic procurement system in the nation.

Currently, there are five active states — Idaho, New York, Texas, Utah, and Massachusetts — participating in the pilot. Observer status has been granted to 22 additional states. Within the active states, there are 176 registered users and 25 pilot departments.

On the supply side, sixteen vendors are active EMall Suppliers, including Home Depot and Dell. Although the EMall is still a pilot, it has handled over \$360,000 in purchasing transactions.

As a pilot project, the EMall tests the business, technical, and legal viability of conducting routine commodity procurement over the Internet. Security is provided by using Public Key Certificate technology coupled with user name and password, ensuring that only authorized state users can submit approved OBI (Open Buying on the Internet) Orders to the approved suppliers.

The EMall pilot, which runs through September 30, 1999, is moving into the evaluation stage. The hope is to move forward with a production version after the pilot has been completed.

PayInfo is comprised of new technologies that make receiving pay information easier and more accessible for Commonwealth employees. PayInfo, which is currently operating as a pilot project, offers Commonwealth employees the option to access their payroll information securely over the Internet via a personalized web page whether at home, on vacation, or at work. As a secondary means to access the information, a series of Interactive Voice Response Units (VRUs) is available for getting pay information over the phone, using a toll free number (similar to checking a credit card or bank balance).

This information is in addition to the weekly payroll stub that everyone will continue to receive. OSC is currently in the evaluation phase of the pilot, with four Commonwealth agencies participating. Even with this limited scope, the Internet site has often had over 100 hits a week on the 'current pay period' page alone.



Commonwealth of Massachusetts  
PayInfo

## MCAD IMPROVES COMPLAINT TRACKING AND FEDERAL FUNDING

The Expanded Community Housing Opportunity Enforcement system (ECHOES) is one of many IT Bond II projects that will pay dividends in both time and cost savings. Project ECHOES was designed to help the Massachusetts Commission Against Discrimination (MCAD) automate the processing of complaints filed in local jurisdictions and report those complaints to the appropriate federal agency.



MCAD's mission is to ensure equality of opportunity by enforcing the Commonwealth's anti-discrimination laws, through the resolution of complaints of discrimination in the areas of employment, housing, public accommodations, services, credit and education. MCAD has offices in Boston and Springfield and coordinates with other state agency offices in Worcester and New Bedford. MCAD also has two federal counterparts, the Department of Housing and Urban Development and the Equal Employment Opportunity Commission. Because these agencies do not have investigative staff in Massachusetts, the work is done by MCAD staff and is partially reimbursed by the federal government. Thus, it is important that the automated processing system not only increases efficiency but that it creates accurate records for reporting purposes to ensure proper funding from the federal government.



The ECHOES project includes the redesign of the existing database application and downloading data from the ITD mainframe to a network file server on the Wide Area Network. The WAN will provide links to the Boston and Springfield offices and the compliance centers. The network link will provide fax, e-mail, file transfer and video conferencing capabilities to improve communication and complaint processing times. The system will also allow MCAD to have real-time data exchange with the federal government rather than the twice weekly snap shots of data now being provided.

With these initial improvements, investigators' productivity has more than doubled. MCAD also helped the cause by moving from an agency mainframe to a LAN, allowing all reporting to be done within the system. The new project will take that a step further by giving constituents the ability to dial up and enter a complaint from their home computers. The net result of these improvements will be faster processing times, less paperwork, better coordination and importantly, an increase in federal revenues through better case tracking.



# OIG UPGRADES ALL OF ITS INFORMATION TECHNOLOGY

The Office of the Inspector General (OIG) performs management reviews of state, county and municipal agencies and independent authorities, and conducts criminal and civil investigations. The Office also has a special unit devoted to monitoring the Central Artery/Third Harbor Tunnel Project and providing extensive technical assistance to project officials on contracting issues.

Prior to the recent IT Bond II enhancement, the network server in the OIG was last upgraded in 1992 and only 13 of the 36 PCs in the OIG met Commonwealth standards. Although office staff performs frequent field work, the OIG had no electronic resources for use in the field. Even basic desktop publishing and document reproduction capabilities were severely limited, impeding staff efficiency and production.

To remedy this situation, the OIG utilized IT Bond II to undertake a number of upgrades, including: replacing the file server with a Pentium machine, replacing the operating system with Microsoft NT Server 4.0, replacing the cabling system, and upgrading the Office PCs, software and printers. Laptop computers, a CD-ROM tower, as well as a scanner and other imaging technology were purchased.

The upgrades have boosted the efficiency and productivity of the Office's activities, including the highly praised Massachusetts Public Purchasing Official (MCPPO) program. The IT Bond II Upgrades have allowed the MCPPO program to offer high-quality seminar presentations and written materials as well as efficient registration and certification services to the hundreds of public officials participating in the program.

In addition, OIG now has a presence on the Web, allowing other agencies and citizens to access a vast array of information at <http://www.state.ma.us/ig/ighome.htm>. This includes manuals for procurement officials, a recommended code of conduct, executive summaries of past reports, all the OIG reports going back to 1997, and newsletters. The upgrades have also allowed the OIG to create an internal PDF library, and to conduct legal research from the desktop. The upgrades were all done with off-the-shelf equipment and software, and are Y2K compliant. All of this adds up to cost savings, increased efficiency and less paperwork.





## DISTANCE LEARNING



Imagine that you are a student at the University of Massachusetts who wants to take a very specialized course in your field. The course

is not available on your local campus, but is offered at another campus in the UMass system. One option is to drive at least 100 miles round trip every time the class meets to the UMass campus that offers the course. A less stressful and less time-consuming option is to attend the class on your local campus using distance learning technology. In such an environment, faculty and students are in physically separate classrooms, but can see and converse with each other via large monitors or projection screens, speakers and microphones.

To make such educational opportunities a viable option for students, UMass has developed distance learning classrooms through a combination of special state funding and university resources. The classrooms provide the technological base to expand collaborative efforts among UMass campuses, resulting in more opportunities for joint program

planning and sharing of instructional resources. These facilities also provide system-wide access to major campus-based intellectual events, such as distinguished lecturers and seminars.

With the completion of this effort, each UMass campus has the capacity to teach or receive a minimum of two courses at any time. In addition, a distance learning classroom in the President's Office in downtown Boston will be shared by the five campuses to make UMass education more accessible to the residents and work force of Boston.

The technology also can support academic collaboration with state and community colleges and provide outreach opportunities to K-12 schools that have compatible distance learning technology. In the 1998-99 academic year, UMass has collaborated with state and community colleges, public secondary schools, and medical facilities to teach or team-teach thirty courses and seminars of mutual interest. Several hundred students have participated already. Participants include all five campuses of the UMass system; Bridgewater, Westfield, and Worcester State Colleges; Berkshire, Bristol, Cape Cod, Greenfield, Middlesex, and Springfield Technical

Community Colleges; the University of Rhode Island; public school locations in Dorchester and North Attleboro; as well as Berkshire Medical Center and St. Elizabeth Hospital.

One of the primary objectives in constructing these distance learning classrooms is to give students and faculty the perception of being together in one classroom even though the students are physically located in different classrooms across the state. Basic multimedia capabilities are also available in these classrooms. Macintosh and Windows computers are available with presentation software, spreadsheets, word processing and access to the Internet. Document cameras can be used to display visuals, objects and slides. A VCR or laser disk player allows for viewing of video clips. All of this equipment is controlled with a user-friendly control panel. MITI, the Massachusetts Information Turnpike Initiative, provides the infrastructure for the Distance Learning network.

For further information about distance learning at the University of Massachusetts, please visit the web site: [http://www.umassp.edu/distance\\_learning/](http://www.umassp.edu/distance_learning/).

## MITI SERVICE CONTINUES TO GROW

The Massachusetts Information Turnpike Initiative (MITI) network is the foundation block for providing high-speed Internet and interactive video services to more than 100,000 Massachusetts students. A majority of public higher education students use these services daily to meet their educational objectives.

The demand for MITI services continues to grow at an extraordinary rate. This past year MITI expanded its Internet service to a DS3 to support dramatic increase in Web-based course offerings and ancillary materials. These courses spanned a wide range of disciplines including art history, computer programming, electrical engineering,

and web development. It is estimated that over 20,000 students, at more than 50 educational institutions, took advantage of these offerings during the last year alone.

Distance learning is one of the most important and widely used services offered through MITI. Each of the 5 UMass campuses has a pair of state-of-the-art distance learning classroom facilities. Each classroom has direct connections to the MPEG-2 and ISDN video networks and the high-speed Internet service. The ATM-ISDN gateways and an ATM-based multipoint conferencing bridge, installed this year, provide on-demand connectivity to each

of the 24 state and community colleges that share programs with UMass and each other.

MITI recently expanded its user community to include over 30 libraries and is looking to add an additional 125 in the coming months. Through a collaborative effort with the state's Department of Education, UMass is also looking at extending T1-connectivity to each of the state's 351 school districts over the next 18-24 months. With these connections in place, the Commonwealth will have a comprehensive educational network in place that bridges the K-12, community colleges, state colleges, and state university communities.



## UMASS LIBRARIES

The five libraries of the University of Massachusetts received \$1.2 million in IT Bond funds to improve and enhance their technological services and infrastructure. Because of varying technology needs, the funds were used to raise all of the libraries to comparable levels. These infrastructure enhancements have provided greater access to information resources for students throughout the system and citizens alike.

IT Bond investments in the Amherst Library have provided the equipment and infrastructure needed to provide greater interactivity across the campuses of UMass and to launch new information technology projects and services. For example, the Multimedia Room is a new service, offering faculty and graduate

students a place to explore and apply innovative multimedia technologies in support of teaching, learning and research. The Digital Imaging project will provide electronic access to digitized versions of special library collections. In doing so, this project will support the educational and scholarly research of students and scholars in the UMass system and worldwide.

The Boston, Dartmouth and Worcester libraries used the funds to purchase an integrated, web-accessible library automation system. This state-of-the-art system, called Voyager, provides seamless access to all of the holdings, and links easily with the Amherst system. It provides the ability to search the holdings, including those available electronically, both in the libraries

and from remote locations. It will also link to other systems, databases and web pages. The Lowell campus used some of their funds to purchase the system as well. In addition to the system purchase, the libraries were able to purchase equipment and upgrades to enhance access for their users and to provide improved desktop use from offices and homes. At the Lowell campus, the early round of IT Bond funds concentrated on installing two new instructional computer labs, called Electronic Reference Centers, in the reference departments.

The University of Massachusetts Libraries are now state-of-the-art in library technology. Their plan is to add and expand existing technological resources, and incorporate new developments into their services. The goal is to continuously upgrade access to their vast collections and services for their students, faculty, and for the citizens of the Commonwealth. Visit the UMass library web pages at:



Amherst: <http://www.library.umass.edu>  
 Boston: <http://www.lib.umb.edu>  
 Dartmouth: <http://www.lib.umassd.edu>  
 Lowell: <http://www.libvax.uml.edu>  
 Worcester: <http://www.library.umassmed.edu>

## ALL COLLEGE CAMPUSES CAN NOW REACH THE INTERNET



**T**he Massachusetts State and Community Colleges have been engaged in upgrading their networking infrastructure to enhance their readiness for 21st century education. During fiscal 1998 and 1999 these efforts have been paid for by a combination of IT Bond II funding, education technology supplemental funding, and campus matching funds at a level of two dollars of campus funds for every one of centrally provided funds. The investments that the state has made in these campus network upgrades have

significantly improved the technical capability of the State and Community College campuses.

The work completed to date includes each college connecting every classroom and office to campus local and wide area networks, bringing each campus network to a standard of 100 MIPS. Campuses may then connect to the UMass Massachusetts Information Turnpike Initiative (MITI) network for access to other campuses and to the Internet. (See the story on page 12 for more information about MITI.) Most campuses have completed this work; the remainder will complete it in FY2000. Every office and every classroom in the State and Community College systems can now reach the Internet. This paves the way for more connectivity between and among campuses and will support distance learning and other shared resources.

The campuses still need to build instructional classrooms for distance learning and train their campus staffs to use this technology. If sufficient funding is available, the Board of Higher Education (BHE) plans to fund four regional training centers with \$200,000 initially to set up each center, and \$200,000 a year each for operations. In their future plans, BHE is working jointly with UMass on related initiatives such as choosing compatible microform readers for all campus libraries, and on providing shared databases to support business and research. These shared databases will be hosted centrally and made accessible by all campuses. The availability of these databases, while not saving money, will make more information available more widely to students, faculty and staff.

Once the campuses have achieved their distance learning and library integration goals, BHE plans to seek funding for acquisition of management information system software for the State and Community Colleges.





## REINVENTING ENVIRONMENTAL INFORMATION SYSTEMS

Since 1988, agencies within the Executive Office of Environmental Affairs (EOEA) have relied on a VAX mainframe to support sixteen environmental databases running on Oracle software. The applications are used as the source of data for many critical environmental decisions made by staff at EOEA, the Departments of Environmental Protection (DEP), Fisheries, Wildlife, & Environmental Law Enforcement (DFWELE), and Food & Agriculture (DFA).

These environmental systems were originally designed to collect and maintain data related to:

- Monitoring facility discharge permits, facility compliance, enforcement actions, permit fees, penalty payments, the use of toxins, and the progress of agencies in cleaning up state owned facilities or sites.
- Tracking the status of waste site cleanups, Mass Environmental Policy Act projects, state outdoor recreation plans, federally permitted projects in coastal zones; measuring the quantity of fish and shellfish harvested commercially; assessing the water quality and status of shellfish beds, as well as drinking water quality test results.
- Monitoring the registration of motor boats, snowmobiles, and all terrain vehicles; the amount of pesticides being applied across the state; and the status of licensed pesticide applicators.

Over the last ten years the amount of data stored and collected increased substantially, while the applications remained rooted in a slow, DOS-based technology. In addition, end user expectations for speed and reliability soared, as did the demands for data analysis capabilities.

For the past year, information technology and environmental professionals across the Secretariat have been working to dramatically reinvent the environmental information systems. As a result, the applications were converted from a DOS/VAX based environment to Windows/NT with the full suite of Oracle application development tools running on a three tiered architecture. The converted system enables users to access environmental information using a faster, friendlier, point and click method with access for most applications through a browser. In addition, with the ad hoc querying capability, users can now preview reports on the screen, saving time and paper since many reports only need to be viewed, not printed.

The conversion project is the first step to ensuring that environmental professionals are able to transform the data into the basis for sound and scientific environmental decisions and concentrate on sharing and delivering environmental knowledge. An overriding benefit to the environmental agencies is that all of the applications are now Y2k compliant.

Pending funding, the next phase of reinventing the environmental information will be to modify the systems to accept on-line reports, forms, and applications from businesses, municipalities, and environmental organizations. Not only will this drastically reduce duplicative data entry efforts, it will also encourage external entities to ensure that the data that they submit is accurate. In addition, the Environmental agencies will provide the public with the ability to access environmental information over the Internet.

*An overriding benefit to the environmental agencies is that all of the applications are now Y2k compliant.*



Last fiscal year, the Human Resources Compensation Management System (HR/CMS) project made great strides. The new technical architecture, now in place, will offer point and click technology and the "thin client" form of client/server, which puts major computing power at the data center and PCs on the desktop. Connectivity testing, concluded this spring, verified that departments are able to connect with the HR/CMS servers at the data center. Finally, departments will have the ability to view and print reports through Document Direct.

*HR/CMS combines two payroll systems into one biweekly system. It offers departments better reporting and gives employees new opportunities to make electronic payments to bank and credit union accounts.*

The project team is now preparing for the conversion of PMIS and CAPS data (these systems were written in Natural, COBOL, PLI and in Natural and COBOL respectively). In HR/CMS, programmers use COBOL and SQR for batch programs and PeopleCode and SQL statements for online programs. The conversion team is writing programs in Natural to extract the data from Adabas databases and writing SQRs to load the data into the new Oracle database aided by the conversion tool "Convoy," which helps by linking the data dictionary from the old systems to PeopleSoft.

While the conversion of PMIS and CAPS data is more or less a one-time effort, interfaces to the state's major administrative systems such as MMARS, PCRS, MAGIC and the Treasury must provide for ongoing communication of very different data structures across different hardware platforms. The effort will be aided by COMM-Bridge.

HR/CMS progress this year extends beyond the technical issues above to include the completion of detail design, programming, and a change management effort that has engaged liaisons from every department in learning about HR/CMS, practicing useful skills using computer-based training, and preparing for implementation. Testing is now underway, with simulated production testing scheduled for October.



## DMA & ITD COLLABORATE TO REINVENT MEDICAID PROCESSING

The Medicaid Management Information System (MMIS) is a system required by the Federal Government in order to receive reimbursement for the Commonwealth's Mass Health Program. The MMIS system owner is the Division of Medical Assistance, which is part of the Executive Office of Health and Human Services. Medicaid expenditures total \$3.8 billion a year in Massachusetts, so effective operation of the MMIS is the key to receiving the \$1.9 billion federal reimbursement that is a major source of state revenue. Since September 1998, the MMIS has been running at ITD's data center at the Massachusetts Information Technology Center (MITC) in Chelsea.

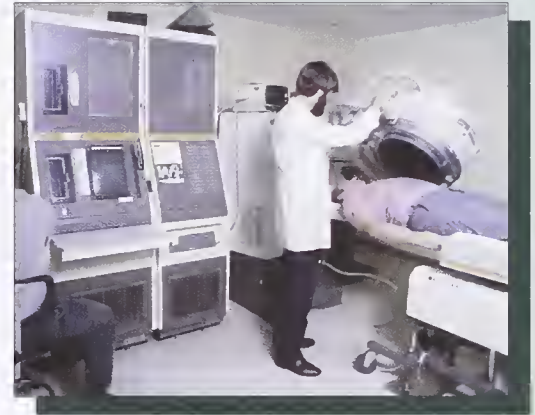
The MMIS is a huge system with several major components that allow the Mass Health program to provide medical insurance to approximately 850,000 Massachusetts citizens who would otherwise be uninsured. DMA's client population is primarily lower income citizens, children, the elderly and the disabled. In addition to the member eligibility database, the MMIS holds data on 16,000 active health care providers and all of the medical diagnosis and procedures data to adjudicate and pay 45 million claims each year. It has a systems interface for sending payment data through MMARS to the Treasury to generate the checks and electronic fund transfers.

Bringing this operation in-house allows for more efficient time saving processing and it positions the Mass Health program for its next phase, electronic claims submission. The MMIS system allows Division staff and its contractors to: enroll members into managed care plans; pay premiums or claims for services; maintain claims history data, and provides a powerful data analysis environment to study and evaluate all of the data that the system collects. The data is highly confidential, requiring a tightly secured environment that is one of the reasons ITD was chosen for the system's new home.

In addition, the Commonwealth has made a huge investment in information technology with their move to Y2K compliant CMOS machines and software at the MITC data center and with their plans for online government. With these investments, the MITC data center offers the appropriate infrastructure at a reasonable price. While the system was being readied to run at ITD, all of its supporting system software environment was upgraded, saving time and money.

With the MMIS now in the same data center as the eligibility data and the MMARS system, data does not have to travel back and forth across the country providing increased efficiency. What took hours can now be done in seconds. The onlines and reporting are faster, and the onlines can also start earlier and stay up longer because the overnight batch applications complete in less time. This is especially important for the on-line pharmacy system, POPS, a 24 by 7 operation.

When the Commonwealth moves into online government with a "single face of government," MMIS will be part of that implementation with their online claims submission.





## Y2K RESOURCES FOR BUSINESS



According to Carolyn E. Boviard, Director of the Massachusetts Department of Economic Development, many small businesses may still not be prepared to ensure their Y2K compliance. The Department of Economic Development and Office of Business Development continue to promote the need for businesses to become Y2K compliant. By making sure that systems and processes will be able to operate without disruption on January 1, 2000, companies will continue to conduct business without any adverse impacts.

The Department of Economic Development has teamed with the Massachusetts Manufacturing Extension Partnership (MEP), the Small Business Administration and the U.S. Department of Agriculture to make sure that every business, regardless of industry and size, has the answers and resources to identify potential Y2K problems and find the available solutions.

One free resource is the "Conversion 2000: Y2K Jumpstart Kit". This tool allows businesses to complete an inventory of those assets that may be susceptible to Y2K difficulties. This easy-to-use CD-Rom is available free by calling 1-800-Y2K-7557. This number is also a question and information hotline that runs from 8 a.m. to 8 p.m. EST. Businesses can also call the local MEP at (617) 973-8606.

The Massachusetts MEP will soon be scheduling a series of workshops at community colleges across the state to help businesses utilize the "jumpstart kit." For a list of classes and times, please check the Massachusetts Manufacturing Extension Partnership web site now being completed at <http://www.massmep.org>.

Once a business has identified its problem areas, how can it finance the solutions? Another partner, the Small Business Administration, is now able to provide financing through recent legislation supported by the President and the Congress. The SBA has special 7A loan guarantee assistance for companies to address their Y2K problems. The guarantee is extended to 90% for loans for \$100,000 or less and an 85% guarantee for loans over \$100,000. This program sunsets December 31, 2000. For more information and the name of a participating lender, businesses can call the local SBA office at 617-565-5590 or visit their web site at <http://www.sba.gov>.

The Department of Economic Development has tools and resources available and encourages every Massachusetts business to take advantage of them.



## YEAR 2000 STATUS REPORT



**A**ndrew S. Natsios, Secretary of Administration and Finance, testified in July before the Joint Legislative Committee on Science and Technology regarding the Year 2000 issue. This article highlights some of the major accomplishments that he reported.

In December 1998, Governor Cellucci signed Executive Order 408, which outlined the Commonwealth's commitment to and strategy for dealing with the Y2K issue. At the time that this Executive Order was issued, only 43% of the state's mission critical systems were compliant. As of June 30<sup>th</sup>, more than 91% of the mission critical and more than 94% of the essential systems have been tested and deemed Y2K compliant. The remaining small percentage of agencies with systems with unresolved Y2K issues have been required to devise detailed contingency plans in the event of Y2K failure. Until the Commonwealth has a signed fiscal year 2000 budget, agencies will be under strict personnel and spending limits. After passage of the budget, sanctions will be imposed against those agencies that are still non-compliant.

The recent turning of the Commonwealth's fiscal year on July 1 was a good test of the state's system-wide compliance. Thanks to the level of preparedness, only two systems had minor disturbances, and were returned to full operation within a matter of minutes. This is the best indication thus far that the state is well prepared for the new millennium.

The Public Safety agencies have made significant progress in recent months, mainly due to Secretary Jane Perlov and her staff making this a Secretariat-wide priority. Each agency with a completion date past June 30 reallocated resources and shifted projects to complete Y2K remediation in accordance with the Governor's executive order. As a result of this effort, of 39 Mission Critical systems, 36 are now compliant, and all of the 27 essential systems are now compliant.

The 16 agencies of the Executive Office of Health and Human Services have also overcome significant obstacles and challenges preparing for Y2K. All 95 mission critical applications within EOHHS and all 45 of the potentially vulnerable essential applications have been fixed.

The Department of Telecommunications and Energy (DTE) will continue to aggressively monitor the Y2K status of the state's electric, gas, water, and telecommunications utilities to ensure reliable, uninterrupted service to consumers throughout the Commonwealth. DTE and ITD have been assured that there will not be any significant interruptions as a result of Y2K issues. The information that has been received to date supports this conclusion.

The Department of Revenue's Division of Local Services continues to exert yeoman-like Y2K outreach efforts with the Commonwealth's cities and towns. Another important outreach effort has been conducted by the Massachusetts Emergency Management Agency (MEMA). MEMA is now conducting "face-to-face" outreach visits with public officials throughout the Commonwealth. The purpose is to reassure local officials and the public that remediation efforts appear to have worked, and that any potential disruptions will be minor and isolated. At this point, the greatest risk is not that the state's systems will shut down or that the sky will fall, but that there will be an overreaction by the public. The Administration is planning a series of public outreach initiatives this fall to quell any public anxiety over the Y2K issue.

MEMA has completed a review of 146 city and town Comprehensive Emergency Management Plans (CEMP) and provided information and material for the communities to use. During these reviews, MEMA conducted table-top exercises based upon the CEMP. All 351 city and town plans will have been reviewed by August 31<sup>st</sup>.

While the Commonwealth is confident that the state's systems are virtually Y2K proof, the mission critical systems have been undergoing a stringent independent audit, known as Independent Verification and Validation (IV&V). This process will provide another set of expert eyes to recheck the work completed thus far.

Although great progress has been made to date, the Commonwealth will not become complacent. Every one of the business days remaining until the turn of the century will be made to count in this effort.



# IT BOND II FY99 PRELIMINARY EXPENDITURES

<b>Project Name</b>	<b>FY1999 As Of 8/4/99 Expenditures</b>
HR/CMS	4,164,182
Electronic Commerce	4,004,738
DMH - Office Automation	3,399,844
MAGNET	3,112,281
RGT - Campus Infrastructure Upgrades	1,951,609
DOC - Inmate Record Imaging & Archiving	1,874,375
ITD - Strategic Planning	1,735,500
Statewide Point-of-sale Outdoor Recreation Transaction ( SPORT ) System	1,380,000
DOR - Robotics Tape Storage Technology	1,331,106
Major IS Development Projects	1,162,782
EHS - Systems Integration Project	1,154,292
SCA - Integrated License & Document Management System	1,091,091
State Police Information Network ( SPIN )	875,020
DA Database Development	817,972
WEL - PRISM	788,363
DOR - Client/Server Network	553,458
Reengineering Of The CHSB Systems	541,806
DEM Info - Information, Networking, Facilities and Operations System	461,812
Imaging And Workflow Technologies	377,962
SAO - Automation Of Audit Preparation	315,000
Massachusetts Information Turnpike Initiative ( MITI )	311,423
Springfield Technical Community College	297,581
CPC - Office Automation	270,000
OCD - Client Fiscal Management System	219,910
ITD - Educational & Technical Programming Technologies	200,000
WEL - BEACON	190,389
SEC - System Migration & Office Automation	175,354
CJT - Law Enforcement Technical Training Centers	160,190
Senate Automation Projects	138,195
Home Care Management Information System (HOMIS)	113,002
AGO - Systems Migration And Office Automation	111,646
SEA - Berkshire Telecom Initiative	100,000
Converting 3 ED TV Stations To Digital Broadcast	93,901
SEA - Office Automation	73,189
Firearms Licensing And Imaging ( FLIP )	35,780
CAD - Community Housing Opportunity Enforcement System	12,709
IGO - Office Automation	6,342
<b>Total IT Bond II FY1999 Preliminary Expenditures</b>	<b>\$33,602,804</b>



# PRELIMINARY FY99 IT SPENDING

Executive or Constitutional Office or Branch	Gross Operating Expenditures	Gross Capital Expenditures	Grand Total
Health & Human Services	\$70,530,816	\$24,568,803	\$95,099,619
Administration & Finance	\$32,395,646	\$22,694,232	\$55,089,878
Public Safety	\$25,972,602	\$14,765,275	\$40,737,876
Higher Education	\$16,125,055	\$4,020,964	\$20,146,018
Judiciary	\$9,442,757	\$10,559,317	\$20,002,075
Treasurer & Receiver General	\$ 15,739,436		\$15,739,436
Environmental Affairs	\$3,894,473	\$8,007,846	\$11,902,319
Department of Education	\$3,706,335	\$6,865,441	\$10,571,776
Transportation & Construction	\$1,302,237	\$4,596,158	\$5,898,395
Secretary of State	\$3,477,888	\$2,159,708	\$5,637,596
District Attorney	\$3,324,515	\$1,201,519	\$4,526,034
Consumer Affairs	\$2,541,975	\$1,361,439	\$3,903,414
Labor	\$2,133,366	\$20,636	\$2,154,002
Joint Legislative Expenditure	\$1,892,529	\$134,952	\$2,027,481
Sheriff's Departments	\$1,875,851		\$1,875,851
Office of State Comptroller	\$152,130	\$1,108,594	\$1,260,724
Attorney General	\$773,947	\$278,407	\$1,052,355
Communities & Development	\$230,342	\$624,574	\$854,916
All Other	\$1,916,954	\$800,584	\$2,717,538
<b>Grand Total</b>	<b>\$ 197,428,853</b>	<b>\$103,768,450</b>	<b>\$301,197,303</b>

Notes:

**Accounting Fiscal Year 1999 Expenditures as of June 30, 1999 including the following object codes:**

E07, E08: Phone expenditures and chargeback  
 E09: Software and licenses  
 E10: Data processing chargeback  
 H03: Contracted IT professionals (including Medicaid processing system)  
 E11, J08, K01: IT cabling equipment and supplies  
 L01, L21: IT equipment lease-purchase or rental-lease  
 L41: IT equipment maintenance and repair

**Does Not Include:**

Expenditures from trust or federal accounts, or net effect of federal reimbursements  
 Salaries for State technical staff



# PREVIEW OF SOME IT PLANS FOR FY2000

## **Consumer Affairs CLARIS**

In FY1999 the Office of Consumer Affairs and Business Regulation (OCA) in association with the Board of Registration in Medicine (BORIM) and the Division of Insurance (DOI), implemented the Consolidated Licensing and Regulation Information System (CLARIS). The full version of the CLARIS system was installed at BORIM and a limited Y2K compliant version was installed at DOI. The CLARIS system was developed using Internet based tools to enable users to access the system using standard web browsers. This system greatly enhances an agency's ability to collect and report on licensing and adjudicatory transactions. CLARIS has also introduced a consistent core data model and set of data definitions that can be used across all OCA agencies. In FY2000 the full version of CLARIS will be installed at the DOI. This customizable application will also be installed in other OCA agencies in subsequent phases of the project.

## **DOE, ITD, MCET & UMass Massachusetts Community Network**

The Information Technology Division has been working closely with the Department of Education, the Massachusetts Corporation for Educational Telecommunications (MCET), and the University of Massachusetts to create the Massachusetts Community Network (MCN). The goal of MCN is to provide advanced data communications services to public K-12 schools, public libraries, and municipal offices at a fraction of the current cost. These savings will be made possible by aggregating the demand from all of these thousands of end users and finding a private telecommunications firm that is to offer steep discounts in order to capture this enormous amount of traffic. While no definite date has been set for the start of MCN, the hope is that it will be in place by early 2000.

## **Department of Environmental Management DEM INFO**

The Department of Environmental Management's Information, Networking, Facilities and Operations system will be implemented over the next two fiscal years following the results of an RFR issued this summer. DEM manages over 200 of the state's forests, parks, campgrounds, and skating rinks — a vast array of facilities. This web based system will track data about aspects of those facilities such as assets, ownership, programs, natural resources, staffing, visitors, fees, revenue, etc., to improve management of natural resources, recreation services, environmental compliance, and the consistency and accuracy of departmental information.

## **Department of Fisheries, Wildlife and Environmental Law Enforcement SPORT**

The Department of Fisheries, Wildlife and Environmental Law Enforcement (DFWELE) is in the development stage of the Statewide Point-of-Sale Outdoor Recreation Transaction (SPORT) system contract with KPMG Peat Marwick. The project team is developing the software due in late September, with acceptance testing to run through mid-October. SPORT implementation for DFWELE and Internet users is scheduled to occur prior to November 1<sup>st</sup>. A pilot test involving subsets of external DFWELE licensing agents will follow. In addition to the design, development, and implementation of the SPORT application, the Department is also busily engaged in the consolidation and re-organization of the licensing operations and personnel within the Divisions of DFWELE.

## **ITD Strategic Planning Group Online Government**

During FY2000, the Strategic Planning Group will continue to provide resources and support for agencies planning Online Government applications. The Online Government Team will continue to serve as the first point of contact within ITD for agencies, providing:

- consultation regarding the concept and project plans.
- information about resources available and sources of expertise about similar projects.
- coordination of input from appropriate staff from other ITD units in the planning process.
- assistance in the development of procurement specifications.
- coordination of ITD resources and tracking of the progress of the project.

The team will also continue its collaboration with national, state and local government groups in the area of Electronic Government. Among the projects on the FY2000 agenda are: expansion of the Public Access Architectures supported by ITD, drafting a Strategic Directions document on Privacy, exploring the feasibility of closer state/local government collaboration, and drafting a Commonwealth Strategic Agenda for Online Government.

## **Office of the State Comptroller Internet Applications**

OSC's technology plan for FY2000 is to continue developing and enhancing the office's existing internet-based applications. The current OSC web-based projects are the EMall (jointly with OSD and ITD), MASSfinance (VendorWeb and CommonCents), and PayInfo. The EMall will be analyzed and evaluated over the summer while continuing to operate as a pilot. The evaluation will include developing a production model that will be used to implement the Multi-State EMall. VendorWeb (MASSfinance) will be evaluated for functionality enhancements. CommonCents (MASSfinance) has additional questions in development, including user-defined queries that drill down to department level expenditures and revenues. PayInfo will be rolled out statewide to all PMIS (weekly payroll) departments.



Insourcing Medicaid processing as described on page 17 is going to change the way Medicaid claims are handled in ways that would not have happened in the previous outsourced operational mode.

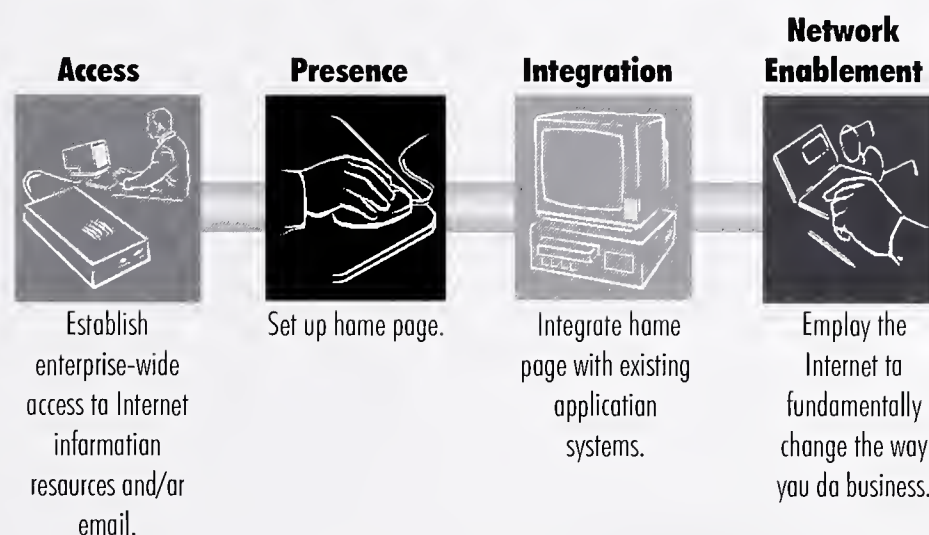
Email, described on page 9, is another example of changing the way we do business: this program enables the participating states to use each other's contracts with vendors for purchasing commodities. States were welcomed into the fold when they had a contracted vendor to bring to the table. This means that Massachusetts does not have to generate all those contracts for itself.

How about Distance Learning, now available at UMass and coming soon to a state or community college near you? (See pages 12, 13 and 14.) Now students can take courses not offered at their own campuses without having to drive hundreds of miles to get to and from another campus.

And yet again, there's the online GIS described on page 5: here's a situation where an organization can get free data and free software for creating their own maps – in addition to being able to use MassGIS' online maps or to order maps on paper. This could explode the use of GIS in non-GIS-traditional businesses such as health care.

Many recent web-enabled and interactive voice response (IVR) systems have made a real change in the way Massachusetts state government does business by opening up online transaction processing directly to the customer. There are many examples of this: DOR's E-file systems for online or IVR tax filing; RMV's Express Lane for online registration renewals, duplicate registrations, ordering special plates, and paying citations. There are other examples in this issue of systems that will soon enable their customers to interact with the agency through the Internet: Medicaid claims submission and MCAD complaint tracking. As outstanding as these examples are of using information technology to improve efficiency and customer service, they are basically examples of doing the same thing faster. Sure, it's more efficient for the agency and more convenient for the customer, but it's still essentially the same process.

It is generally conceded that there are four phases to the E-Business Evolution:



As we move into the next century and millennium, it will no longer be sufficient to use information technology investments to just do the same thing faster. We will have to reform the business – break the model.

David Lewis

## INFORMATION TECHNOLOGY DIVISION

One Ashburton Place, Room 801  
Boston, MA 02108

The Information Technology Bulletin is a quarterly newsletter of ITD's Strategic Planning Group. One of the SPG's tasks is to act as a clearinghouse for IT information. This publication furthers that goal. Please send correspondence to Managing Editor, Elaine Socha, the Information Technology Bulletin, Room 801, One Ashburton Place, Boston, MA 02108

Voice: (617) 973-0865  
FAX: (617) 727-3766  
Email: Elaine.Socha@state.ma.us

This publication is also available on the web at  
<http://www.state.ma.us/itd/bulletin/>

Next Publication: Fall 1999

Presorted

First Class

U.S. Postage Paid

Permit No. 2226

Warcester, MA

\*\*\*\*\*SNGLP  
I  
Leonard Adams  
UMass - W.E.B. DuBois Library  
Government Documents  
Amherst MA 01003



Printed on Recycled Paper

If any part of the address on this newsletter is incorrect, mark the changes on a photocopy and send or fax the copy using the information of the upper left.





JAN 14 2000

INFORMATION  
TECHNOLOGYUniversity of Massachusetts  
Depository Copy

## B U L L E T I N

Vol. 5 No. 4

Fall 1999

Executive Office For Administration & Finance  
Information Technology DivisionSecretary Of Public Safety Jane Perlov  
Not Missing A Beat On The Technology FrontJane Perlov  
Secretary Of Public Safety

Jane Perlov was appointed Secretary of Public Safety by Governor Poul Cellucci and Lt. Governor Jane Swift in January, following a distinguished career with the New York City Police Department. She made history in New York as the first female captain in the department's history, and at the time of her departure, she was the first female Chief of Detectives

in the Queens borough of the city.

Secretary Perlov came to Massachusetts from a law enforcement environment known nationally for their innovative, cutting edge use of information and systems to monitor programs and measure results. For example, the "Comstat" program was implemented in New York City to track a wide range of criminal activity indicators and is used to hold supervisors and managers accountable for the activities within their precincts. Integration with computerized mapping allows near real-time analysis of crime trends and "hot spots" to aid with resource allocations. The Secretary believes these types of programs can be helpful in Massachusetts.

"It's all about sharing information and working together", explained Secretary Perlov. "Although there are many outstanding information systems established

within our Secretariat and indeed throughout the Commonwealth, our challenge is to make them work together as one system. Allowing anyone who needs important information to get it quickly, easily, and electronically is our ultimate goal."

In Massachusetts, there is a wealth of information stored in various systems managed by different agencies. Part of the challenge is overcoming the confidentiality issues to facilitate

information sharing. One potential solution is House 130, filed by the Executive Office of Public Safety in December of 1998. This legislation would allow law enforcement access to other critical state databases to locate wanted persons. The state Department of Employment and Training, the Department of Revenue, and the Department of Transitional Assistance, would all be allowed to share biographical information, including addresses, for persons with outstanding warrants.

"The major breakthrough with the Comstat system in New York was that, for the first time, all the players were sitting at

the same table. If a captain had a problem with narcotics trafficking in one of his neighborhoods, he could turn and talk to the head of the narcotics detectives, and together they could work out a solution. They all worked off of the same numbers. Information sharing such as this was one of the factors that led to the huge success in driving down the crime rate. My experience in New York taught me just how important it is for everyone to be able to share information. I believe we can replicate that

success in Massachusetts," said Secretary Perlov.

In addition, Secretary Perlov is committed to arming police officers in the field with perhaps the strongest weapon in the fight against crime, information. Massachusetts police departments are encouraged to take advantage of the latest technology, so that

their officers can have access to important, potentially life-saving information where and when they need it, in their cruisers. Through a major systems upgrade at the Criminal Justice Systems Board, Secretary Perlov has expanded the capacity of the CJIS system so it can support a larger number of mobile data

*"I have found no shortage of dedicated, hard working men and women willing to work day and night to make our streets safer. It is our job to make sure that we give them the tools to do just that, and to do it safely and efficiently."*

## In This Issue...

Interview with Secretary Perlov .....	1
AFIS and III Arm Criminal Justice Agencies for the Millennium .....	2
New CIO Envisions Strategic Role .....	3
Department of Mental Health Implements Upgrades .....	4
Countdown to the Year 2000 .....	5
DOR Online Tax Filing & Other Web Applications .....	6
HR/CMS Training Begins .....	7
MAGNet & CSB Services .....	8
New Emissions Testing .....	9
ITD Resources .....	10
Message from the CIO .....	12

Continued on page 4



# AFIS AND III ARM CRIMINAL JUSTICE AGENCIES FOR THE MILLENNIUM

Massachusetts has made a major commitment to rebuild its criminal identification process just in time for the new millennium. The foundation for this will be the deployment of a new distributed state-of-the-art Automated Fingerprint Identification System (AFIS) which will be located at the Massachusetts State Police Identification Section (SIS) in Sudbury. Access to the AFIS will be via the Commonwealth's Criminal Justice Information System (CJIS) network that is managed by the Criminal History Systems Board (CHSB).

The new AFIS system will be powerful enough to process all of the daily arrest, firearm license and latent fingerprint transactions from around the state. It also includes an integrated AFIS Records Management System using the latest web browser technology and automated workflow software. This system will allow for the seamless integration of an offender's fingerprints and arrest event using the OBTN (Offense Based Tracking Number) concept. With this, the Commonwealth can begin to transition to a fingerprint supported criminal history. The new AFIS system will be the cornerstone for providing Massachusetts with fingerprint supported criminal records and sole-source reporting to the FBI. These are the two most critical requirements for the Commonwealth's participation in the Federal Interstate Identification Index (III) program.

The III is the cooperative federal / state system for the decentralized exchange of criminal history record information. It is also an electronically accessible index of the names maintained by the FBI that serves as a "painter system", identifying the existence of records maintained by the states. In the

same manner that a card catalog assists library searches, the III enables a participating state to search the criminal records held by other participating states by submitting a single request from the state to the III. If a state's request for an individual's record yields a "hit" in another state, the III automatically requests that the other state transmit the individual's record to the requesting state. This decentralization of the records takes advantage of improvements in technology and reduces redundancy. Additionally, experience shows that records are more accurate when they are maintained closer to their source.

To meet the III requirement of sole-source submission, the existing identification infrastructure of the State Police and the CJIS network maintained by the CHSB will be used. Upon this foundation, the new statewide AFIS is being built as a distributed system with electronic access to all the criminal justice agencies within Massachusetts. This approach will maximize existing resources, eliminate redundancy between agencies, and support the "CJIS as a hub" concept. The key benefits to the criminal justice agencies of Massachusetts will be:

- Improved offender identification;
- Better access to criminal history information through the state CJIS and III.

To improve the accuracy and speed of the fingerprint identification process, and to eliminate the need to create and mail paper cards, the new AFIS is being developed with the capability of supporting the paperless transmission of fingerprint records to the State Identification Section (SIS). Fingerprints will be electronically forwarded from local police departments and/or criminal justice

agencies via the Commonwealth's State and Forward System to the State Identification Section using the CJIS network. In addition, the new AFIS will be capable of transmitting and receiving records to and from the FBI.

Plans for the deployment of AFIS related equipment to local agencies are currently being reviewed. This equipment will allow police departments, sheriffs departments and other criminal justice agencies to scan ten print arrest cards and electronically mail them to the SIS over the CJIS network. Remote latent workstations have already been designated for the regional State Police Crime Labs and the Boston and Springfield police departments. Other criminal justice agencies/departments are also being considered for the deployment of this equipment.

As we enter the 21<sup>st</sup> century, the deployment of the new AFIS system, and the Commonwealth's subsequent participation in III will provide the criminal justice agencies of Massachusetts with one of the most sophisticated identification systems in the country. This is being made possible through the joint cooperation of the Criminal History Systems Board, the Massachusetts State Police, the Executive Office of Public Safety and the criminal justice agencies of the Commonwealth. For more information about the AFIS/III project, contact Captain Michael J. Saltzman at the State Police Identification Section at 508-358-3170 or at [Michael.Saltzman@pal.state.ma.us](mailto:Michael.Saltzman@pal.state.ma.us).





# NEW CIO ENVISIONS STRATEGIC ROLE



David Lewis  
Chief Information Officer

David Lewis, the Commonwealth's new Chief Information Officer, sees electronic delivery of government services as the next big thing, once the Year 2000 dust settles. He is concerned about the big picture — the enterprise view — the single face of state government presented to the citizens of Massachusetts. The idea of a single face of government with one-stop-shopping has been expressed often in recent years. No one disagrees with the concept. Within ITD, there is an effort to get all state government web sites into the "state.ma.us" domain to have a common entry point into the Commonwealth on the Internet. "But having a single face of government with one-stop-shopping will involve more than just a common entry point. There has to be some integration of functionality at the level of common transactions," said Mr. Lewis.

To take the most common example, if an individual or a business moves to a new location, the address change has to be reported to several state agencies separately. In the case of an individual, this would mean reporting the change at least to the Registry of Motor Vehicles and the Department of Revenue. For a business, there would be many additional agencies: the Comptroller's Office, the Treasurer's Office, the Department of Environmental Protection — and possibly more. The concept of one-stop-shopping suggests that reporting the address change to Massachusetts state government would only have to happen once — and all the relevant agencies

would receive the information.

There are a couple of obvious but unwieldy solutions to having one notice do the trick: consolidating the relevant agencies; or having the relevant agencies share a common customer-centric database. But there has to be a solution that would accomplish the same result — one notice to state government from the customer — in a way that is less disruptive to the organization and to the existing systems of the relevant agencies. Again, there are at least two possibilities. There could be some general web application for capturing customer generated data changes to the Commonwealth connected to a search engine that would identify the agencies and/or databases needing the information. Alternately this web

---

*"...the CIO is now more of a strategist — someone who helps set a strategic direction and then drives that direction."*

---

application could list the agencies with which the public interacts directly and the customer could choose those to be notified. The second possibility is that the customer would

go to an agency's web site to report the change and be queried about other agencies needing the information so that the change could be shared.

According to Mr. Lewis, "If we all agree that a single face of government for e-commerce is a desirable goal, then there has to be a central cooperative effort to achieve this." The Commonwealth CIO role seems a likely catalyst for a centrally driven effort, working with the chief

technologists at the secretariats and agencies. "The job description of a CIO has evolved over the last decade," said Mr. Lewis. "Previously, the focus was on technology, the purchase of hardware and some software development. Many agencies now have Chief Technical Officers to focus on those areas and the CIO is now more of a strategist — someone who helps set a strategic direction and then drives that direction." This is the role David Lewis sees for himself: the bandleader encouraging all the executive branch agencies to play the same tune and march in the same direction in pursuit of online government.

Mr. Lewis points to the Year 2000 Program Management Office (PMO) as an effective model for a way in which an integrated and centrally driven effort can succeed. The relevant leaders get together to agree on statewide goals and standards. Then the central staff works with the various agencies to see that the goals are achieved. Some agencies may find that they have to put the central plan ahead of their individual preferences.

Mr. Lewis has been with the Commonwealth for over 28 years, having started at the Department of Public Welfare (now Transitional Assistance) in 1971 as an accountant. Prior to moving to the Information Technology Division, Mr. Lewis was the Senior Deputy Registrar at the Registry of Motor Vehicles. He has an MBA from Suffolk University, and undergraduate economics degree from New England College and certificates from Harvard University's Kennedy School of Government.



# DEPARTMENT OF MENTAL HEALTH IMPLEMENTS UPGRADES



Like many other state agencies, the Department of Mental Health (DMH) began last year to upgrade its information technology infrastructure to ensure Year 2000 compliance. However, unlike other state agencies, DMH also had a number of other issues that needed immediate attention. In addition to Y2K compliance, the Department's Management Team for the Information Technology Infrastructure Standardization Project (ITIS) looked to update and migrate the network operating system, the messaging platform (email), the desktop operating system, and the office suite for the entire organization.

In making these sweeping changes, the project team, led by Judi Rygiel, faced a number of challenges. For instance, due to the autonomy of each DMH area, there were a wide variety of systems, hardware and software at each individual location. Over the years, each area developed a number of in-house applications that needed to be migrated. Significantly, much of the old hardware and software would not allow DMH to be Y2K compliant, to implement HRCMS and other statewide applications or support

a planned implementation of a Mental Health Information System. The large variety of individual architectures was also hard to manage. It was clear that one standard network architecture would solve these problems and provide many other benefits to the organization.

The vision of the management team was to combine the Y2K upgrades with standardization, which would allow DMH to introduce better long-term practices in asset management, desktop standardization, platform migration, software distribution and, user development and training. Overall, the project encompassed a number of important improvements, including:

- ←The upgrade of 37 local networks;
- ←The upgrade of 2,500 desktop PCs;
- ←Training of 3,100 network users on tools and Office Suite;
- ←Migrating approximately 400 software applications (including in-house created software, vendor supported software, user developed software and off the shelf software).

DMH had never taken on a business or technical project of this size and the team was consistently challenged to create new ways to foster cooperation with area staff. An important example of innovative thinking was the creation of a centralized help desk. In addition, a standards group was formed

to include area staff in the decision making process.

Although many steps were included in the upgrades listed above, Ms. Rygiel's team realized that the most important aspect of the project was the actual roll out. Users would be required to learn new skills and use new tools, thus communication was the key. Interviews were held with the users to determine their skill level and outreach was enhanced through the use of newsletter articles, power point presentations, area based presentations and emails.

The project team employed an outside vendor to conduct all end user training and the roll out was implemented in phases. Users were required to attend a full day of training and, while they were in training, their old desktops were replaced with new or upgraded hardware and software.

Because of the Project Team's advanced planning, each area migration was successful and end users experienced minimal disruption in their job functions. As a result, technology use at DMH has grown significantly, with 3,100 of the approximately 4,700 DMH employees gaining network access. In addition, the network is Y2K compliant, senior managers now have remote access to the network, users have access to the same software and importantly, DMH is now ready for any new IT initiatives.

## Continued from "Secretary Of Public Safety Jane Perlov" page 1

terminal (MDT) users. Well over 150 municipalities in the Commonwealth currently have MDT systems in some or all of their police cruisers, and more communities are expected to come online in the near future.

Secretary Perlov is also pursuing funding for 1,000 MDTs for the Massachusetts State Police. This project is an effort to get the trooper on the street instant access to critical information at roadside, eliminating the need to wait for a dispatcher, and without consuming radio time which is needed for other purposes. With this capability, a trooper can perform a single check and find out if the car they have stopped is registered to: a known offender, a person with restraining orders, a wanted person, a parolee, a probationer, on inmate on work release, etc.

Another essential priority for the Cellucci-Swift administration is the implementation of

state-of-the-art identification services, and implementing compliance with the FBI Interstate-Identification-Index (III). Please see the AFIS/III story for more information. "This national system is a key to our ability to once and for all know who an offender is, and avoid the morass of aliases and false identifications often presented by an offender", said Secretary Perlov.

"Without integrated, state-of-the-art systems, public safety personnel will not be able to do their job to their maximum potential," said the Secretary. "Technology is one of the many tools at our disposal that we need to put in the hands of public safety personnel across the state. Massachusetts is fortunate; since coming here, I have found no shortage of dedicated, hard working men and women willing to work day and night to make our streets safer. It is our job to make sure that we give them the tools to do just that, and to do it safely and efficiently."



## Status of Y2K Efforts

In October Secretary of Administration and Finance, Andrew S. Natsios, reported to the Joint House and Senate Committee on Science and Technology that the Commonwealth's mission critical and mission essential systems were 98% compliant. The remaining systems are scheduled to be Y2K ready by November 30 with detailed contingency plans in place. Each of the 32 Commonwealth Critical agencies was required to undergo a full Independent Verification and Validation (IV&V) of all their mission critical systems, conducted by an outside contractor. With the exception of the Judiciary, all of the Commonwealth Critical agencies will have met their IV&V requirement by the end of November.

### The Information Technology Division's Program Management Office (PMO)

has been focused on the review for content in agencies' contingency and business continuity plans, and the testing of these plans through table top exercises and rehearsals. Through these plans, alternative processes / approaches to run government business are identified and documented. The PMO has been providing feedback to agencies on areas in which their plans have not met deliverable milestones or require additional detail. This has been evident in assessing some of the interdependencies between agencies, service providers and suppliers. Year 2000 team managers and members were identified along with the areas of responsibility for each team member. See below for information regarding the Rollover Weekend.

### The Massachusetts Emergency Management Agency (MEMA) and the Department of Revenue's Division of Local Services

have performed significant outreach to the cities and towns. Similarly, the Division of Banks, the Department of Telecommunications and Energy, the Department of Economic Development, and the Office of Consumer Affairs also have kept in close contact with their constituencies on the issue of Y2K. The Department of Public Health has been vigilant through its work of carefully monitoring the Y2K compliance of the Commonwealth's 107 hospitals. DPH's first survey of hospitals' compliance, completed in August, revealed a 23% hospital compliance rate. That percentage more than doubled as of October. And by the time of this publication, more than 89% of the state's hospitals are scheduled to be Y2K compliant.

### MEMA

will be conducting a comprehensive, multimedia public awareness campaign designed to reach the maximum number of Massachusetts residents. The purpose is to reassure local officials and the public that remediation efforts have largely been completed, and that any potential disruptions are expected to be minor and isolated. At this point, the greatest risk is not that systems will be inoperable, but that there will be an overreaction by the public, or that they may fail to prepare for any possible minor disruptions. The public outreach initiatives are designed to dispel public anxiety over the Y2K issue and to provide guidance on how to prepare for potential minor disruptions.

### Be Y2K Wise

As part of this campaign, in November the Web site of the Commonwealth of Massachusetts' Be Y2K Wise Campaign was rolled out at <http://www.state.ma.us/BEY2KWISE>. This is an interactive and easy to use web site designed to provide reliable and helpful Y2K information to the citizens of the Commonwealth. Hospitals, banks, airports, grocery stores, pharmaceuticals, utilities and consumer products are among the many institutions and services that appear on the web site. At the web site, anyone can find responses to their questions about these sectors' readiness and how they should prepare for a specific potential Y2K issue. Each page contains information about a particular industry or product, as well as links to other government agencies, corporations and foundations that may provide additional information.



### Rollover Weekend

In an effort to help agencies validate their plans and ensure readiness for the New Year's weekend, the PMO has published two documents: a "Best Practices Guide" for plan testing / scenarios and a "Millennium Rollover Checklist" for staff planning requirements and activities during the rollover weekend. It is recommended that the checklist be used for resource and event planning over the millennium rollover weekend (December 31<sup>st</sup> — January 2<sup>nd</sup>). See the state's Y2K web site for the checklist at <http://www.state.ma.us/y2k/Publications/RolloverChklist.htm>. The PMO has also published the reporting process for agencies to follow in order to report their status into the PMO by 3:00 p.m. on January 1<sup>st</sup>. This information has been sent to all 171 agencies and also resides on the Y2K web site.

The PMO is committed to continuing work with the agencies in tracking IV&V and moratorium dates, staffing plans, table top exercise schedules, and plan an attending various agency exercises / drills. By working together, keeping communications open and rehearsing contingency / business continuity plans for strategic and business processes, each organization will be better prepared and pastured for a smoother transition into the new millennium.



# DOR ONLINE TAX FILING & OTHER WEB APPLICATIONS

At the Massachusetts Department of Revenue (DOR), digital technology is making it easier than ever to file your state tax return. DOR also is utilizing the latest technology to improve customer service to taxpayers, and to enhance their child support collection services. The success of these programs can be seen in faster refund turnaround times, increased child support collections, and a reduction in the amount of paper processed by DOR.

## Tax Administration – Electronic Tax Filing and Online Registration

DOR is committed to reducing the amount of paper processed each year by offering taxpayers an array of technology-based tax filing programs for this coming tax year.

**Telefile** allows users to file returns using a touch-tone telephone. A simple worksheet and an eight-minute phone call, coupled with the ability to directly deposit refunds, makes Telefile the easiest method for taxpayers to file their state tax returns. DOR's website, <http://www.state.ma.us/dor>, has a **Telefile Tax Calculator** so that taxpayers can determine in advance whether they will receive a refund or whether a payment is due, and what the amount will be.

**PC File** enables taxpayers to file their Massachusetts income tax returns by home computer with free software from DOR's website. There are two versions of the PC file software: the standard version for taxpayers who do not need to submit schedules, and a more comprehensive version for those who do.

**Electronic Filing** is available for DOR approved paid tax preparers to submit tax returns for their customers. Taxpayers can also prepare returns on their own and use a preparer to transmit them. This filing method allows taxpayers to receive refunds in four days or less.

**Online Filing** enables taxpayers to prepare and file their tax returns via the Internet through independent software and service providers. Unlike PC File, Online Filing providers may allow users to file all related tax schedules. They also may offer tax return preparation assistance.

**WebExtend** is a Web-based application allowing taxpayers to file an Application for an Automatic Six-Month Extension of time to file a personal income tax return (Form M-4868) over the Internet.

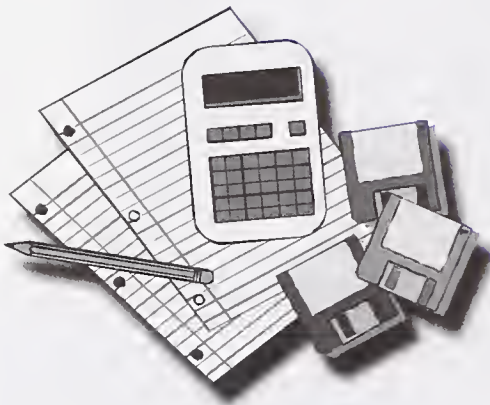
In addition to tax filing applications, DOR also is developing a Web application for businesses that will allow them to prepare and file their **Trustee Tax** applications (Forms TA-1, TA-2, TA-3 and TA-4) via the Internet. Completion of the Trustee Tax application is required in order for an employer to collect a wide variety of taxes (e.g. withholding, sales and use, and meals) from its employees and / or customers. This application is still in the testing phase at DOR.

## Child Support Enforcement Web Applications

The **Insurance Claim Payment Intercept Program (ICPIP)** is a first in the nation enforcement program utilizing a website to collect child support arrears. Massachusetts' insurance companies must first check with DOR to determine if a claimant or beneficiary owes unpaid child support before issuing any insurance claim payment. The process, which formerly took ten days, can be completed in minutes. To date, Massachusetts has intercepted more than \$3.2 million in child support arrears through this program.

As part of an upcoming employer website, DOR is currently developing a **New Hire Reporting Application** for reporting new employees to DOR via the Internet. By law, all employers are required to inform DOR of any new employees within 14 days of hire, either by sending DOR magnetic tapes or boxes. This upcoming Web application will provide businesses with a quick and easy way to submit their reports and eliminate the need for DOR to enter data from thousands of faxed reports.

Technology has increased DOR's ability to service customers, enforce the Commonwealth's tax and child support enforcement laws, and assist employees through enhanced information exchange and system integration. The applications DOR provides encourage customers and employees to make use of technology while reducing time and money normally spent on manual processes. DOR's use of technology continues to have a major impact on the way the Agency and its customers conduct business. For more information about these programs, please see DOR's website at <http://www.state.ma.us/dor>.





# HR/CMS

## TRAINING BEGINS



The new Human Resources Compensation Management System (HR/CMS) is heading into the home stretch. There is much that is new, but there has been much preparation. Users have been learning about the system for almost a year. They have received newsletters, attended business process overviews, attended system demonstrations, and they have met regularly with their HR/CMS liaisons to review the progress of their departments toward readiness.

HR/CMS training began in November for departments currently using the PMIS system. CAPS departments will begin training later, in mid-January, because the CAPS implementation of HR/CMS takes place later. The goal here is to offer training as close as possible to the time when the user will be able to apply the skills learned in training.

### Three classes are the major focus:

- ◆ **Human Resources Core** is a three-day class in which the student learns how to manage general Human Resources functions using HR/CMS—how to walk through the steps required to enter employee personal, job, and benefit-related information and how to use relevant reports. Additionally, the student will see how Position Management relates to the work of Human Resources.
- ◆ **Payroll Core**, a two-day class, shows students how to perform a number of key payroll processes such as maintaining data relating to employee taxes, direct deposit, deductions, and garnishments as well as processing retroactive pay, making payroll adjustments, and viewing payroll data. This class also offers the student an understanding of the overall payroll process including how HR/CMS and PCRS work together.
- ◆ **Time and Attendance** is a two-day class in which the student learns how to use HR/CMS to prepare employee time and attendance records for submission to payroll. The class teaches how to enter exceptions for exception hourly employees and how to record time for positive time employees. The students will learn to check for and correct errors. Finally, the students will learn which reports will be available after implementation.

Additional two-hour workshops are offered to HR/CMS users: Regulatory Requirements, Labor Relations, and HR/CMS Navigation. Prior to implementation users will be able to return to a training lab and review HR/CMS processes with an HR/CMS instructor. A one-day class on how to use HR/CMS data in the Warehouse is also available.

Training is offered at five Community College locations across the state and in Boston. Classes, which begin promptly at 9:30 AM and end at 5:00 PM, are limited to 15 participants as each classroom has 15 computers. Most classes will have two instructors.

Those who plan to attend HR/CMS training should sign up through their department liaison, read all of the HR/CMS newsletters, and complete the HR/CMS computer-based training, "Pathways to the Future" I and II. Familiarity with how to use a mouse and a basic understanding of Windows terminology is a prerequisite.

# MAGNet & CSB Services

## *MAGNet Improvements*

ITD continues to improve wide area network services. The current undertaking is a new uninterrupted power supply system and substantial generator/electrical upgrades for all of One Ashburton Place. This is a joint project with the Division of Capitol Asset Management and the Bureau of State Office Buildings.

Other areas of improvement include:

- ◆ Staff, consulting services, servers and secure cabinets to support the current growth in electronic commerce applications;
- ◆ Mail\*Hub (X.500) enterprise E-mail directory system and expansion of the Exchange and Banyan enterprise E-mail directories;
- ◆ Deployment of a channel interface processor (CIP) to migrate the SNA Legacy Network to the TCP/IP Routed Network;
- ◆ Replaced time division multiplexing (TDM) with wide area network switching technology;
- ◆ Development of the Internet security firewall and intrusion detection services;
- ◆ Upgrades to the network management systems to anticipate service outages and decrease restoration time;
- ◆ Design of the Internet service provider for high availability Internet service;
- ◆ Upgrade of the Internet connection to fractional T-3 (12 Mbps) service and plan to double through FY 2001;
- ◆ Conducted third party information security audit;
- ◆ Upgraded network trouble ticket system.

## *Standards:*

ITD has recently published Information Technology Architecture and Enterprise Standards on the web at <http://www.state.ma.us/itd/standard/index.htm>. These standards include: operating systems, desktops and servers; local and wide area networks and network management; wiring, security, remote access and Internet access; messaging, office automation and data management; video conferencing, web publishing, and geographic information systems. Standards are specified for the current fiscal year (FY2000), as well as for FY2001 to provide a clear migration path to new technologies for agencies. ITD will be working closely with OSD representatives to determine the best methodology for inserting current as well as future Information Technology Architecture and Enterprise Standards into the appropriate blanket contracts. This web site also contains Information Technology Guidelines, Information Technology Policies, and Strategic Directions documents. The latter include Public Access architecture standards; these are extremely important to agencies interested in or in the process of designing a web-based application to deliver agency services and/or information.

According to CSB Director Lou Macinanti, if an agency follows these standards during the planning and design of a new system, CSB-supported implementation time frames may be significantly reduced and require only a few weeks notice prior to implementation. Undertakings that do not meet these standards will be subjected to a security evaluation that needs to be factored into the projects' implementation plans. If an agency needs to work outside the prescribed standards, they should talk to ITD early on in the project.

## *Communications Services*

The Communications Services Bureau (CSB) is streamlining its approach to managing customers' requests by requiring all agencies to submit a Customer Service Request form. All requests go to a single point of contact at CSB, the Information Services Team which identifies the specific services required by the requester and coordinates with experts throughout CSB. The Data Integration and Operations Team provide planning and network design assistance to agencies; implement, manage and test all network hardware; provide bandwidth management; and provide 24 by 7 on-call technical assistance. The Communications Systems Support unit is responsible for enterprise messaging, enterprise security, online government support, domain naming services, and Internet access. For all services offered by the Communications Services Bureau, contact CSB via email at [CSB-Support@itd.state.ma.us](mailto:CSB-Support@itd.state.ma.us) or by phone at 617-973-0738.



# NEW EMISSIONS TESTING MEANS INCREASED SAFETY & CLEANER AIR

This is the second in a series of articles about the Commonwealth's new emissions testing and vehicle safety inspection program. The first article provided a general overview of the project and this edition of the ITD Bulletin examines the technology involved and the progress of the implementation.

As reported in the Spring 1999 edition of the ITD Bulletin, the Commonwealth has been mandated under the Federal Clean Air Act of 1990 to alter and improve its inspection of vehicle emissions because the state is not attaining acceptable air quality levels. Under congressional authority, the United States Environmental Protection Agency can impose growth and highway fund sanctions on any jurisdiction that fails to implement inspection programs.

In response to these federal mandates, the Registry of Motor Vehicles (RMV) and Department of Environmental Protection (DEP) began implementation of the Enhanced Emissions and Safety Test on October 1, 1999. The agencies, working with Keating Technologies, the network contractor for the program, are using advanced vehicle testing technologies located in over 1200 privately-owned inspection stations to create a comprehensive, state-wide inspection database, which will aid the Commonwealth in reducing air pollution and increasing vehicle safety.



Over the life of the seven-year program, vehicle emissions and safety data will be collected at inspection stations via a workstation and dynamometer, a treadmill-like device that simulates driving conditions. Each workstation is modem-connected to the contractor's Vehicle Inspection Database (VID) which, in turn, communicates directly in real time to the RMV's Automated License and Registration System (ALARS). Redundancies and database backups allow for testing to continue despite any unexpected interruptions in communications links. After a barcode swipe and password entry by the inspector, each vehicle inspection begins with a query by the workstation to verify a vehicle's active registration status. Through communication with the VID, ALARS returns this verification and authorizes the testing to begin. The VID also determines the appropriate test type for each vehicle, while the workstation software prompts the inspector through each step of the inspection process.

The inspector uses a remote control that simplifies data entry during the safety or emissions testing process. At the conclusion of the test, detailed results are recorded at the workstation and transferred via dialup to the VID. Pertinent inspection information is then recorded with the vehicle's registration information on ALARS. Finally, a vehicle-unique inspection sticker and comprehensive inspection report are printed by the workstation. Although this sticker is useful in many aspects of the program, tracking and enforcement emphasis is now shifted to the electronic record that is created with each inspection.

This type of automated data collection marks a significant step forward over the former sticker-driven program. Station and inspector licensing, waiver administration, auditing and sticker tracking are now done electronically, replacing antiquated paper-driven systems. Using the VID's reporting and auditing capabilities, the agencies will now be able to use sophisticated analyses to determine inspection trends or abnormalities. Targeted remedial training, increased auditing and station enforcement will now be possible to ensure accurate, consistent and fair testing for all vehicles.

Although 28 states have been mandated to implement similar programs, Massachusetts has incorporated data transfer and retention technologies not found anywhere else in the country. This is a significant step because it allows for not only an increase in motor vehicle safety, but also a reduction of air pollution by 120 tons per day.

# ITD RESOURCES

## *Communications Services: VPN Contract*



ITD has recently completed a procurement to provide a suite of Remote Access and Virtual Private Networking (VPN) services to all Commonwealth agencies through a Master Service Agreement meeting the varied needs of the Commonwealth's enterprise. The remote access solution will be completely outsourced, with the winning vendor supplying and managing all equipment, software, and services, including any located at ITD. Participating agencies will remotely administer their user access lists, regardless of the directory location. ITD expects to have a signed contract with a selected vendor before the end of the calendar year. Once that contract is in place, OSD will publish the information and have a kick-off meeting with the vendor. For more information on this contract, contact Kevin Sullivan at 617-973-0745 or at [Kevin.Sullivan@state.ma.us](mailto:Kevin.Sullivan@state.ma.us).

## *Strategic Planning Group Services*

**IT Spending Reviews:** For capital funds, SPG reviews IT Bond II requests to determine which investment proposals represent the best use of Commonwealth funds. For operational funds, SPG is beginning to review agency project proposals with values of \$200K or more to support FAD review. SPG also prepares the IT Bond annual report on actual spending and project accomplishments for the fiscal year. This report is distributed to the Long Term Debt Committees of the House and Senate.

The **Y2K PMO** has been focused on the review for content of the agencies' contingency and business continuity plans. See the Countdown to the Year 2000 story for additional details.

For Commonwealth agencies planning an **Online Government** project, SPG is the first point of contact. SPG staff:

- ◆ Provides consultation regarding the concept and project plans;
- ◆ Provides information about resources available and sources of expertise about similar projects;
- ◆ Involves appropriate ITD staff from other units in the planning process to provide information about central services, technical requirements, and specialized areas such as security and authentication;
- ◆ Assists in the development of procurement specifications;
- ◆ Coordinates ITD resources and tracks the progress of the project.



SPG staff also plans and conducts Vendor Days and Summit Meetings with an Online Government focus; drafts Online Government policies, standards and guidelines; maintains an Online Government web site; and collaborates with national and state organizations and government groups on Online Government issues.



# ITD RESOURCES

## Enterprise Applications Bureau

The new HR/CMS application will be using **CommBridge** to link to all interfacing applications within the Commonwealth, so the team has been busy installing CommBridge at a variety of new sites including the Office of the State Treasurer and many state and community colleges. Supporting integration testing, and soon simulated production testing, will be the CommBridge team's next focus.

Recently, the CommBridge application received an award from Government Technology at their Albany conference.

Future developments include a new paradigm called "Publish and Subscribe" that will allow an application to easily send information to subscribing applications and an addition to the CommBridge website that will provide users with a mechanism to ask questions or report problems to the CommBridge team. The CommBridge website can be accessed through ITD's Intranet site at <http://www.itd.state.ma.us> and clicking on CommBridge under "Projects".

As expected, the **HR/CMS** project is steaming ahead and getting closer and closer to implementation. Extensive testing is in progress, including data conversion testing and volume testing for the new biweekly payroll process. Simulated production testing which will involve limited, selected department personnel is the last testing phase. In addition to the technical work being done by EAB staff on the HR/CMS project, in conjunction with Andersen Consulting, development activities are underway to seamlessly link HR/CMS to PCRS to MMARS for processing employee and contractor payrolls and employee payroll adjustments.

A help desk group for HR/CMS is being assembled under the guidance of Bethann Foster, the HR/CMS Help Desk Manager. This new organization will be a subset of ITD's current help desk, CammanHelp, directed by Sandy Kruczowski, and will be staffed by ITD resources. Callers' problems and questions, both application-oriented and technical, will be resolved by this front line group or referred to subject matter experts at HRD, OSC, GIC, etc.

**Y2K** independent verification and validation (IV&V) of all systems supported by EAB was completed recently. Several vendors were selected to perform the IV&V for PMIS, CAPS, PCRS, and MMARS and all completed on schedule. The results were gratifyingly positive and only a few Y2K problems were found (and fixed). Contingency planning for the millennium rollover is in progress.

## Commonwealth Information Warehouse

The **Commonwealth Information Warehouse** is a centralized, integrated database, developed as a source of information to answer ad-hoc or periodic decision support requests from Secretariats and Departments. It gathers data from a variety of source systems: MMARS, PCRS and PARIS. The current Information Warehouse user community includes over 2000 state knowledge workers from over 125 departments. Warehouse decision support information is utilized predominantly by agencies' financial staff or departmental IT and reporting staff.

Departments equipped with Pentium PCs loaded with Windows 95, Windows 98, or Windows NT, and a standard query tool will be able to utilize Warehouse data. (Older hardware and software will work, but slowly.) Any standard SQL query tool can be used; however, currently only MicroSoft Access and MicroSoft Query/Excel software training is supported by OSC, HRD, or the Warehouse Helpline.

During FY1999, the Warehouse team introduced departments to the new Human Resource Data in the Warehouse (from PARIS). Data offerings will be significantly enhanced by the inclusion of HR/CMS data to the Warehouse during FY 2000. The Commonwealth Information Warehouse development team is currently designing and building new tables and views to include in an expanded, upgraded Warehouse server. ITD anticipates that many new customers in Human Resource, Personnel, and Payroll management/analyst roles will join the Warehouse User community, obtaining training and security access to the new data. In addition, the Fiscal/Budget staff who currently use the warehouse in preparing annual budget and capital spending plans may request access to the new HR/CMS data in the Warehouse.

Information about connecting to the Warehouse is available at the Information Warehouse Web site at [www.iw.state.ma.us](http://www.iw.state.ma.us). This covers including downloadable .dll files, Warehouse activities and documentation, both readable and down-loadable.

Warehouse hours of operation are Monday - Friday (including holidays), 8:00 AM - 9:00 PM. You may contact the Warehouse Helpline by contacting Cammanhelp via phone at 1-800-335-4702 or e-mail at [support@cammanhelp.state.ma.us](mailto:support@cammanhelp.state.ma.us) with any request for assistance or just to share an idea.

## INFORMATION TECHNOLOGY DIVISION

One Ashburton Place, Room 801  
Boston, MA 02108

The Information Technology Bulletin is a quarterly newsletter of ITD's Strategic Planning Group. One of the SPG's tasks is to act as a clearinghouse for IT information. This publication furthers that goal. Please send correspondence to Managing Editor, Elaine Sacha, the Information Technology Bulletin, Room 801, One Ashburton Place, Boston, MA 02108

Voice: (617) 973-0865  
FAX: (617) 727-3766  
Email: Elaine.Sacha@state.ma.us

This publication is also available on the web at  
<http://www.magnet.state.ma.us/itd/bulletin/>

Next Publication: Winter 2000

Presorted  
First Class  
U.S. Postage Paid  
Permit No. 2226  
Worcester, MA

\*\*\*\*\*SNGLP  
Leonard Adams  
UMass - W.E.B. DuBois Library  
Government Documents  
Amherst MA 01003



Printed on Recycled Paper

### *A Message From The CIO*

This is the last "Message From The CIO" before the Year 2000 arrives, and therefore it is a good time to remind ourselves of our Y2K goal of uninterrupted service delivery — business as usual.

Everyone has worked really hard to prepare all of their systems for the new century and, to the best of our knowledge, the risks have been minimized. But it isn't over until it is over.

The whole month of January will be a challenge. Repeat: the whole month of January will be a challenge. There will be problems; the key is to fix small problems when they arise before they become big problems. Having worked this hard and come this far, we need to hang in there a little longer to insure and demonstrate our success.

The best compliment we can hope to receive is none at all. No news will be the best news. However frustrating this is, we mustn't lose sight of the target.

I think we're going to make it.

David Lewis

7279 40





ACME  
BOOKBINDING CO., INC.

JUN 22 2000

100 CAMBRIDGE STREET  
CHARLESTOWN, MA 02129







